



ACHARYA PRAFULLA CHANDRA RĀY

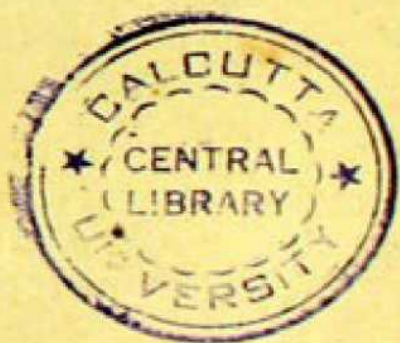
Born : August 2, 1861

Died : June 16, 1944



ACHARYA PRAFULLA CHANDRA RĀY

BIRTH CENTENARY SOUVENIR VOLUME



CALCUTTA UNIVERSITY
1962



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PREFACE

The University of Calcutta decided to publish a Souvenir Volume on the occasion of the birth centenary of Acharya Prafulla Chandra Ray, and with this end in view appointed a Chairman and a Secretary to the Publication Committee with power for the Chairman to select other members of the Committee. The full Committee was eventually constituted as follows:

Priyadarajan Ray, M.A., F.N.I. (*Chairman*)
Priyaranjan Sen, M.A.
J. N. Ray, D.Sc., F.N.I.
B. C. Basu, D.Sc., F.N.I.
D. Chakravarti, D.Sc., F.N.I.
Satya Prasanna Sen, M.Sc.
Aravinda Sardar
P. K. Bose, D.Sc., F.N.I. (*Secretary*)

The Committee decided to bring out a volume dwelling on the life and activities of Acharya Ray and containing tributes and reminiscences from his pupils and admirers.

It was originally planned to publish the volume on August 2, 1961, the day of Acharya Ray's birth centenary. But the Committee regrets that owing to many unforeseen difficulties the publication has been delayed. Fully conscious of the love, admiration and reverence with which the memory of the great savant is held by his countrymen, we hope that this unavoidable delay would be condoned.

The Committee is fully alive to the limitations under which it had to work and to the imperfections in the execution of its task. But it indulges in hoping that in spite of the deficiencies, this volume will have an abiding interest. This is, however, a matter for the readers to judge.

The first part of the book deals primarily with the life and activities of Acharya Ray. The second part is a collection of reminiscences and tributes by some who knew Acharya Ray well either by close personal contact or through his writings and activities. This part therefore reveals many significant facets of his life. We express our grateful appreciation to the contributors whose articles have, we are sure, enriched the publication.

Some of Acharya Ray's correspondence, a few excerpts from his diary, and a list of his publications (excluding the original scientific publications) are given in the appendix. A number of illustrations, some of which are of historical interest, have been reproduced.

The President of India, Dr. Rajendra Prasad, and the Governor of West Bengal, the Chancellor of the Calcutta University, Shrimati Padmaja Naidu, have graciously sent their tributes which appear as the Foreword. We are deeply grateful to them for their kind and ready response to our request.



PREFACE

In the compilation of this volume we have been fortunate in enlisting the active co-operation of many pupils, admirers, and relatives of Acharya Ray. To all of them we owe a debt of gratitude.

It is a bounden duty to express here our profound sorrow at the sudden and untimely demise of Dr. Subodh Mitra (the late Vice-Chancellor of the Calcutta University) and to pay our respectful homage to his memory. Dr. Mitra, a great admirer of Acharya Ray, took a keen and active interest in initiating the publication of this volume.

Two of the distinguished pupils of Acharya Ray and contributors to the present publication, Professor Charuchandra Bhattacharya and Shri Hemendra Prasad Ghosh, did not live to see the volume in print. We pay our respectful tributes to their memory.

It is our great misfortune to record here the sudden and premature death of Professor B. C. Guha just on the eve of publication of this book. He was a very favourite and distinguished pupil of Acharya Ray and rendered us valuable assistance in many ways, besides his own contribution to the volume. With grateful heart, heavily laden with grief, we pay our respects to his memory.

We have pleasure in expressing our thankfulness to Shri Satischandra Ghosh, Treasurer, and to Dr. Golapchandra Raychaudhuri, Registrar of the University, for their ungrudging co-operation and assistance.

To Dr. Kalidas Mitra, Director, Jagadis Bose National Science Talent Search, we are deeply indebted for his sustained and valuable assistance in editorial work and in going through the proofs.

Our thanks are also due to Shrimati Nilima Ghosh, Shri Nadia Behari Adhikari, Manager, the Bengal Chemical and Pharmaceutical Works Ltd., Shri K. S. Das Gupta of Das Gupta Productions, and to Shri Kanchan Mukherjee for supply or loan of some special photographs (or blocks thereof) which have been reproduced in this book.

Shri N. Kanungo has helped the Publication Committee in many ways. We appreciate his devoted service. We would also like to record here our appreciation of the genuine interest and patient co-operation of the Calcutta Job Press Private Ltd. in bringing out this volume.

We are indebted to many other friends who remain unnamed here, but who, by their sincere co-operation and voluntary assistance, have contributed in no small measure to the fulfilment of our task.

March 31, 1962.

MEMBERS,

Publication Committee.

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FOREWORD



RASHTRAPATI BHAVAN,
NEW DELHI

January 6, 1962

Paus 16, 1883 (Saka).

Acharya P. C. Ray's name has been held in loving remembrance by his countrymen. Not only was he a pioneer of chemical education, research and chemical industries in the country, but he was also something more. The interest which his name arouses is much wider and his title to recognition is much greater. He practically spent himself for the social, intellectual, cultural and economic regeneration of India, struggling for a place among the free nations of the world. His sincere patriotism, his life of ascetic self-denial, his unbounded sympathy for the poor, his unfailing solicitude for the welfare of students, and his ready accessibility won him love, reverence and admiration of all.

Acharya Ray revived and handed on the flame—the pursuit of truth—which once burnt so brightly in India, and he has left behind an example of service and sacrifice for his countrymen to follow for the fulfilment and enrichment of their life.

I had the privilege of being his pupil, while studying in the Presidency College, Calcutta, and it will be no exaggeration to state that many of us were infused by the spirit of our Master and even inspired by his ideal and example to dedicate ourselves to the service of our mother country. I also came in contact with him occasionally in later years in course of our national work. It gives me great pleasure to associate myself with the University of Calcutta in celebrating his birth centenary of which the publication of this Souvenir Volume forms only a part.

I hope the volume, depicting the biography and activities of this great son of India, will serve to spread the message of his life far and wide, in India and abroad.

(RAJENDRA PRASAD)



सत्यमेव जयते

GOVERNOR OF WEST BENGAL

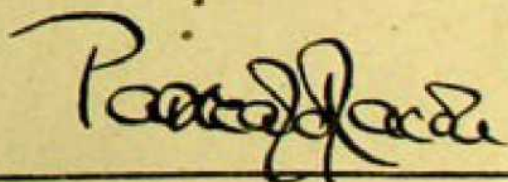
RAJ BHAVAN,
CALCUTTA.

November 3, 1961.

Acharya Prafulla Chandra Ray needs no introduction or words of praise. The nobility, simplicity and forcefulness of his character, his indomitable courage and patriotism and, above all, his dedication to the eradication of social and economic evils have always been a source of inspiration to our people.

Whether as a scientist who laid the foundation for the advance of Chemistry in India or as educationist, social reformer or promoter of industry, Acharya Ray was a pioneer who has left his impact in every sphere he entered.

The people of our country can never forget the debt they owe to this great man and they have already celebrated his birth centenary on August 2nd and paid their reverential homage to his memory. The publication of the present souvenir volume by the University of Calcutta forms only a part of the programme of the Acharya Prafulla Chandra Birth Centenary Celebrations. This volume containing articles on various facets of the life and activities of Acharya Prafulla Chandra Ray will be worth preserving.



(PADMAJA NAIDU)

Governor of West Bengal.

PART I . .

LIFE AND ACTIVITIES

I

ACHARYA PRAFULLA CHANDRA RÂY

(1861-1944)

A LIFE SKETCH

INTRODUCTION

Of the towering personalities, who were born in Bengal in the nineteenth century and who, by their thoughts, words and deeds, moulded the intellectual, cultural, political and economic life not only of Bengal but of India as well, Acharya Prafulla Chandra Rây is not an inconspicuous member. He contributed in no small measure towards preparing the ground for the emergence of modern Bengal and nay modern India. Though a pioneer of chemical education and chemical research in India, his activities were never confined within the four walls of his laboratory and lecture theatre, but embraced almost all spheres of human interest. Intellectual regeneration, industrial development, social reform, economic freedom and political advancement of the country—all made equally strong appeal to him, as did his scientific research and teaching. Above all, in times of distress and suffering of the people, he was the first man in Bengal to respond to the call of humanity. In the opening section of this souvenir volume we propose to give a general account of his life and many-sided activities, detailed features of which will be treated in subsequent sections.

EARLY LIFE AND EDUCATION

Prafulla Chandra was born on August 2, 1861 in Raruli-Katipara, a village in the district of Jessore (subsequently of Khulna), now in Pakistan. His father, Harish Chandra Rây, a landed proprietor with liberal views, was the scion of a wealthy cultured family. Harish Chandra was well-versed in Sanskrit, Persian and English languages, and acquired a great reputation for his learning, eloquence and social activities. Prafulla Chandra was the third son of Harish Chandra and imbibed from his very childhood through his father's influence the habit of free and rational thinking.

Prafulla Chandra's early education started in his father's village



ACHARYA PRAFULLA CHANDRA RĀY

school. He was, however, not a child who could be easily tackled, and often stayed away from the school. His teacher, while making a search for the truant in almost every house in the village, would find to his utter dismay that the culprit had been resting comfortably on the branch of a tree hidden under its leaves. Harish Chandra and his family shifted to Calcutta in 1870 when Prafulla Chandra was admitted to the Hare School. Here he took a great interest in reading books other than the school texts, but had to leave the school in broken health as the result of a serious illness from an attack of dysentery. The disease, though overcome, left a permanent injury to his health by making him a life-long sufferer from chronic dyspepsia and sleeplessness. In his later days Prafulla Chandra characterized this illness of his early life as a blessing in disguise. In the first instance, it made him follow throughout his whole life a rigid code of dietary rules and regular routine of morning and evening walks besides indulging in other healthy recreations. Secondly, freed from the tyranny of the dreary school routine Prafulla Chandra found time to satisfy his passion for studies by diving deep into the classics of English literature as well as by poring over the literary and historical publications in the Bengali language of the time. This also led him to acquire a taste for antiquarian studies which undoubtedly stood him in good stead in later life while compiling the *History of Hindu Chemistry*. Prafulla Chandra also succeeded at this age, when barely ten years old, in acquainting himself with Latin and Greek, besides histories of England, Rome and Spain.

After a lapse of about two years Prafulla Chandra decided to resume his normal academic course and got himself admitted in 1874 to the Albert School, then newly started by Keshab Chandra Sen and his followers. Keshab Chandra, the founder of the New Dispensation Order of the Brahmo Samaj, was then the idol of the youths of Bengal whose minds were dominated by his inspiring and captivating eloquence. As the teachers of the school were all recruited from among the followers of Keshab Chandra Sen, Prafulla Chandra was naturally attracted to it and found its atmosphere very congenial. The liberal views of the Brahmo Samaj and the messages of Keshab Chandra made a deep impression on his mind. He was highly spoken of by his teachers for his proficiency in English and acquaintance with the English literature, which was rather unusual for a boy of his tender age. But when his teachers were hopeful of his brilliant success at the approaching class examination of the school, Prafulla Chandra left for his village home without appearing at the examination. There in the rural surroundings with the simple village folk he established a community of interest and found himself in his own elements, so to say. His love and sympathy for the villagers and sharing of their joys and sorrows, which formed a conspicuous part of his later life, had evidently their origin here. They helped to inculcate in his mind the spirit of service and sacrifice for the suffering humanity, which formed the mainspring of his future activities.



Prafulla Chandra, however, returned to Calcutta in 1876 and resumed his studies in the Albert School. The teachers of this school, who were all inspired by the ideal of Keshab Chandra, contributed in no small measure to moulding the early life of Prafulla Chandra. After passing the Entrance (equivalent to the present School Final) Examination from the Albert School in 1878 Prafulla Chandra entered the Metropolitan Institution (now named Vidyasagar College) established by Pandit Iswar Chandra Vidyasagar. Here he came under the influence of Surendra Nath Banerjee, the father of Indian nationalism, who was the professor of English prose and used to teach Morley's *Burke* and Burke's *Reflections on the French Revolution*. Surendra Nath, who used to carry away the student community in those days by his patriotic oration, did not fail to influence young Prafulla Chandra, and instilled in him a burning desire for the elevation and emancipation of India. In 1880 Prafulla Chandra passed the First Arts Examination (equivalent to modern Intermediate Examination in Arts and Science) from this Institution.

While pursuing his study in the Metropolitan Institution Prafulla Chandra used to attend lectures by Alexander Pedler on chemistry in the Presidency College; for, chemistry and physics constituted a part of the compulsory course for both the First Arts and the B.A. (B-Course) Examinations in those days. Pedler was an inspiring teacher and a very skilful experimentalist. His lectures illustrated by numerous experiments stirred Prafulla Chandra's imagination and aroused his curiosity and interest in chemistry. As a result he took up the B-Course in B.A., suppressing his natural love for literature and history, with a view to studying chemistry for higher stages. Nevertheless, Prafulla Chandra did not give up his interest in literature and learnt Latin and French by his own unaided efforts. Sanskrit was a compulsory subject in those days for the First Arts Examination. He was thus equipped with a fair knowledge of several languages even in his early college days. This prompted him to appear at the competitive examination for the Gilchrist Prize, for which a knowledge of at least four different languages is prescribed. Prafulla Chandra appeared for this examination without the knowledge of his friends and relatives, while a student in the B.A. class. He and one of his rival candidates, Bahadurji by name, came out successful in this test. Encouraged by his success Prafulla Chandra decided to proceed to the United Kingdom for further studies, as the stipend provided by the prize would enable him to meet the expenses of his study abroad. For, at this time the family income had dwindled as his father had to sell out a considerable portion of his landed property to pay his personal debt.

EDUCATION AT EDINBURGH

In 1882, Prafulla Chandra sailed for the United Kingdom and joined

the University of Edinburgh in the early winter session as a student in the B. Sc. class. Here he came under the influence of Professor Crum Brown, who was then the Head of the Department of Chemistry. James Walker was his class-mate, who succeeded Crum Brown after the latter's retirement. Two of his junior contemporaries in Edinburgh, Alexander Smith and Hugh Marshall, won considerable reputation in later life by their researches in chemistry as well as by their proficiency in teaching.

While Prafulla Chandra was preparing for his B.Sc. degree in the Edinburgh University, he was both amused and surprised to find himself rather famous all on a sudden one fine morning with his name on big posters in daily papers of the land. The story behind it had a significant bearing on his future life and reveals a trend of his character which ultimately found its full expression in his burning love for his mother country and in his selfless services for her emancipation. The story is worth recounting.

In 1885 Sir Stafford Northcote (subsequently Lord Iddesleigh), Secretary of State for India during 1867-68, announced as the then Rector of the University of Edinburgh the award of a prize to the best writer of an article on "India before and after the mutiny." Prafulla Chandra at once decided to compete and plunged himself for sometime into a deep study of the historical, political and economic conditions of India during the period under review. He ransacked all the available authentic records and writings on the subject, not excluding even the French publications. The article was duly submitted for the prize. Sir William Muir, the Principal of the University and a former Lieutenant-Governor of the United Provinces in India, and Professor Masson were appointed as examiners of the articles submitted for the prize. Though not considered the best, his article was declared by the examiners as *proxime accesserunt* or the nearest approach to the best. This honourable mention was, however, shared by Prafulla Chandra with another competitor for the prize. Prafulla Chandra's article was full of diatribes against the British rule in India, replete with humour. Nevertheless, it received unstinted praise from Muir in his address to the students of the University while opening the session for 1885. Prafulla Chandra got his article printed and distributed it among his fellow students prefaced by an appeal to them for help in the task of liberating India. A second edition of the pamphlet was published a little later for the general public. A copy of this was presented by Prafulla Chandra to that great, parliamentarian John Bright, who was regarded as a friend of India, together with a covering letter drawing his notice to the annexation of Burma to India by the British and as a consequence to the increased duty of salt on the Indians—a policy which could claim no moral justification. Bright sent a very sympathetic reply to Prafulla Chandra authorizing him to use the same in any way he liked. Prafulla Chandra lost no time in sending a copy of Bright's letter to the *London Times* and other daily papers of the United Kingdom.

One morning these papers came out with the head-line " John Bright's letter to an Indian student " as already stated before. Reuter flashed to India the substance of Bright's letter, as quoted below :

" I regret with you and condemn the course of Lord Dufferin in Burma. It is a renewal of the old system of crime and guilt, which, we had hoped, had been forever abandoned. There is an ignorance on the part of the public in this country and great selfishness here and in India as to our true interests in India. The departure from morality and true statesmanship will bring about calamity and perhaps ruin, which our children may witness and deplore."

In 1886, Prafulla Chandra published his *Essay on India* in the form of a booklet, which administered a mild warning to the British rulers of the disastrous consequence of their reactionary policy in India. The *Scotsman*, while reviewing this publication, wrote as follows :

" It is a most interesting little book. It contains information in reference to India which will not be found elsewhere and it is deserving of the utmost notice."

But now Prafulla Chandra had to cry halt to his excursive activities in the field of politics: for, he had to prepare for the B.Sc. Examination. After obtaining the B.Sc. degree in 1885 he started research work in chemistry for the D.Sc. degree of the University for which the submission of a thesis recording the results of an original work was necessary. In 1887, at the age of 27 he was admitted to the D.Sc. degree of the University of Edinburgh, in recognition of his work on "Conjugated ("gepaarte") Sulphates of the Copper-Magnesium Group: A Study of Isomorphous Mixtures and Molecular Combinations." He also received the Hope Prize scholarship of the University which enabled him to continue his work in the University for another year. The value of the scholarship was only £100 a year. With such meagre and limited resources he managed to meet his expenses in Edinburgh because of his extremely simple and economical ways of living. In Edinburgh, Prafulla Chandra used to stay and mess together with Mr. Parbati Nath Dutt (P. N. Dutt, who earned a great reputation as geologist in later life) for the sake of economy. The members of the staff and the students of the Department of Chemistry in the University of Edinburgh honoured Prafulla Chandra by electing him as Vice-President of their Chemical Society, of which Professor Crum Brown was the President.

Next year Prafulla Chandra returned to India. But before leaving England he visited some persons of influence with letters of introduction from Professor Crum Brown and Sir William Muir, hoping that the

recommendation from the former might persuade the Secretary of State for India to offer him an appointment in the Indian Educational Service. But these recommendations bore little fruit. For, in those days, the Indian Educational Service was practically a close preserve for the Europeans; and the Indians, however qualified, had little chance of being appointed to that Service. Having thus lost all hope for entry in the Indian Educational Service Prafulla Chandra left for India with a letter from Mr. C. H. Tawney, Principal of the Presidency College, Calcutta, then in England on leave, to Sir Alfred Croft, the then Director of Public Instructions in Bengal, recommending him (Prafulla Chandra) for an appointment in the Bengal Educational Service. But even for an appointment in the Provincial Service Prafulla Chandra had to wait for about one year. During this period he used to enjoy the hospitality of Dr. Jagadis Chandra Bose and his wife, and spent his time in the study of plants, specimens of which were collected from the neighbourhood of Calcutta.

PROFESSOR AT THE PRESIDENCY COLLEGE, CALCUTTA

In 1889, Prafulla Chandra joined the Presidency College as temporary Assistant Professor of Chemistry in the Bengal Educational Service on an initial monthly salary of Rs. 250/- only. He threw himself heart and soul into his task and before long earned a great reputation as a successful and inspiring teacher. He used to take good care to make his lectures inspiring and at the same time easily intelligible to the beginners with the help of profuse illustrations by means of experiments, as well as by instances of daily life savoured with spicy humour and wit. In addition, with his extensive knowledge of the history of chemistry he could make his lectures particularly appealing and attractive by narrating, almost dramatically, incidents from the lives of the great masters and pioneers of science. His animated account of the pilgrimage of Wöhler from Germany to the great Swedish savant Berzelius, where Anna, the kitchen maid, served as a laboratory assistant, still rings in many ears. At times, his interest and solicitude for social reform and social regeneration would find expression during his lectures in the form of his chewing a pinch of burnt bone-powder to demonstrate that, when burnt, bone becomes a pure chemical compound (calcium phosphate) absolutely free from all animal matter, as also from a reading or recital of Rabindranath's poems like 'Hing Ting Ckhat,' 'Balika Badhu,' etc. At this age of his life he was a very active member of the Brahmo Samaj and was an elected member of its executive committee for a few years. In later years when he was engaged in compiling the *History of Hindu Chemistry* he would often refer to the chemical knowledge of the ancient Hindus during his lectures. One of his very favourite citations was from the treatise *Rasaratnākara* by the famous Indian alchemist, *Nāgārjuna*. This relates to the description of great hardships, austerities and penances which the sage (*Nāgārjuna*) had to undergo in order to acquire the rare knowledge of chemical operations. By citing this he wanted to illustrate to



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the students that nothing great can ever be achieved by small efforts. He used to say that chemistry is an exacting goddess and it requires a great *sādhana* (devotion) to propitiate her. He would then quote *Nāgārjuna* in his support :

सत्त्वानां भोजनार्थाय साधिता वटयक्षिणी ।
द्वादशानि च वर्षाणि महाकृशः कृतो मया ॥
तत्कालदृष्टद्रव्याणां दिव्या वाणी मया श्रुता ।
... ..
साधु साधु महासिद्ध
किञ्चित् प्रार्थय मे सिद्ध तत्सर्वं प्रदाम्यहम् ॥

श्रीनागार्जुन उवाच—

यदि तुष्टासि मे देवि सर्वंदा भक्तिवत्सले ।
दुर्लभं त्रिषु लोकेषु रसबन्धं ददस्व मे ॥

“For the benefit of living bodies I went through all manner of penances for 12 tedious years and worshipped the goddess Yakshini presiding over *Ficus bengalensis*.”

“Then I heard an oracle :

‘Well ! well ! great sage, I shall give you all that you may ask from me.’

“Nāgārjuna said :

‘O Goddess ! If thou are propitiated, be pleased to communicate to me the rare knowledge of the fixation of mercury.’”

Students were also acquainted with his active interest in industrial development and economic regeneration of the country as he would never fail to remind them that the progress of India depended on her youths getting trained in increasing numbers for industries, business and trade, instead of crowding the universities with an insane craze for degrees to qualify themselves for clerical services or for professions of law, medicine and engineering only.

At this time with a view to preparing ground for the teaching of science through the medium of mother tongue, he set out writing primary text-books of science in Bengali. He was an uncompromising exponent of the view that science can never flourish in a country where it is taught through the medium of a foreign language. In his lectures before the chemistry



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classes in the Presidency College he was never tired of relating the story of the famous Russian chemist Mendéleeff, founder of the Periodic Law, who first published the results of his work in the Russian language, which compelled the scientists of the other nations to learn Russian in order to have a first-hand knowledge of his fundamental discovery. Prafulla Chandra's first attempt in this direction took a shape in the form of a primer of zoology in Bengali under the name *Prāni Vijnān* published in about 1890.

After joining the Presidency College, Prafulla Chandra took up his residence at 91, Upper Circular Road (now named Acharya Prafulla Chandra Road) where he lived till his retirement from the Presidency College. Here he started a Nature Club of which Drs. Nilratan Sarkar and Prankrishna Acharya were very active members. Some zoological specimens were studied by dissection, and the poisoned fangs of cobra and the mechanism of snakebite were examined by them. Of the other members who joined this club, names of Mr. Rambrahma Sanyal, Superintendent, Zoological Gardens Calcutta, Principal Heramba Chandra Maitra and Dr. Bepin Behary Sarker may be mentioned.

As stated before, Prafulla Chandra was a victim of chronic dyspepsia and as a consequence of that he used to suffer occasionally from sleeplessness. In 1891, it aggravated into chronic insomnia which compelled him to go for a change to Deoghar during the Puja holidays.

On returning to Calcutta Prafulla Chandra resumed his normal activity and began seriously to think about giving some practical shape to his ideas of industrial regeneration of the country. He ultimately decided to set an example himself. The following lines quoted from his *Life and Experiences*¹ will acquaint the readers with the working of his mind at the time.

"In Europe industry and scientific pursuits have gone hand in hand, both have advanced *pari passu*, the one helping the other—in fact, industry has, as a rule, preceded science, though based upon empirical knowledge. Soap-making, glass-making, dyeing with purple, scarlet and mineral pigments, nay metallurgical operations, have been known for the last 2,000 years or more, long before the chemical reactions involved in them were understood. No doubt science comes in as a ready handmaid to industry. The history of the gigantic progress of industry achieved in Europe and America is a history of the triumph of researches in the laboratory. In Bengal the one thing needful was not so much the establishment of technological institutes as the initiative, the dash, the pluck, the resourcefulness in our youths, that go to the making

¹ p. 92.

of a businessman or an *entrepreneur* or a captain of industry. The college-bred youth has been found to be a hopeless failure; there is no driving power in him; at best he can only shine as a tool or an automaton.

"These thoughts were weighing heavy on me at the very threshold of my career at the Presidency College. How to utilize the thousand and one raw products which Nature in her bounty has scattered broadcast in Bengal? How to bring bread to the mouths of the ill-fed, famished young men of the middle classes?"

About this time the germ that subsequently led to the establishment of the Bengal Chemical and Pharmaceutical Works took root in his mind. He started preparing common pharmaceutical products for the market in his own house at 91, Upper Circular Road from the locally available raw materials. But his resources were very limited, savings from his meagre salary supplying the capital for his enterprise. Nothing undaunted, he decided upon starting a regular pharmaceutical works under the name Bengal Chemical and Pharmaceutical Works. He had to put an up-hill fight from the beginning to push his products in the market against the competition of imported foreign drugs. But he soon found a very helping hand and partner for his work in his friend Dr. Amulya Charan Bose, who was his class-mate and full of patriotic impulses like him with a common outlook of life. Dr. Amulya Charan was then a fairly successful medical practitioner and his cooperation proved invaluable, apart from the pecuniary contribution made by him, in enlisting the sympathy of the medical profession in favour of their products. A locally made sulphuric acid chamber plant, rather crude and small, was purchased and was worked with the assistance of Chandrabhusan Bhaduri, one of his colleagues in the Presidency College, who had acquired considerable experience of dealing with problems related to chemical engineering. Chandrabhusan Bhaduri was helped by his younger brother Kulabhusan Bhaduri, also a very distinguished scholar in chemistry (M.A., gold medallist).

Soon afterwards a very active and enthusiastic young man with a mind imbued with the spirit of service joined the party. He was Satis Chandra Sinha, brother-in-law of Dr. Amulya Charan Bose, and a trained chemist with M.A. degree in chemistry. He proved a valuable asset to the infant concern, but his promising career was nipped in the bud as he died of accidental poisoning by hydrocyanic acid in the laboratory shortly after his joining. This was a severe blow to Prafulla Chandra and he was very much upset by the event which caused him a deep anguish of mind. But a still more severe blow with a greater misfortune to his young venture struck him when his friend and partner Dr. Amulya Charan died of bubonic plague all on a sudden in 1898. He had already lost his father in 1894 and had to arrange for the clearance of his father's



debts by the sale of a portion of the already divided family estate. These misfortunes and bereavements in quick succession told heavily on his mind, but could not make him yield and admit defeat in his enterprise. He was left in sole charge of the works and continued to run it with his usual tenacity. In 1901, the 'works' was converted into a limited liability company with Prafulla Chandra and a few of his friends along with his colleague Chandrabhusan Bhaduri as Founder Directors. Two other prominent workers, who made notable contributions to its development and reputation by their extraordinary ability, initiative and intelligence soon joined the firm: Rajsekhar Bose joined in 1903 and became the manager of the works in 1904. He was followed after a few days by Satis Chandra Das Gupta as superintendent of the factory.

Dr. Morris Travers, the first Director of the Indian Institute of Science, Bangalore, who visited the Chemical Works during its construction (1904-07) made the following observation about it in course of a report to the Calcutta University :

"The construction and management of the works is the work of the past students from the Chemistry Department of the Presidency College.....

The design and construction of the sulphuric acid plant and of the plant required for the preparation of drugs and other products involved a large amount of research work of the kind which is likely to be of the greatest service to this country and does the greatest credit to those concerned".

During all these years Prafulla Chandra was also actively engaged in research work in his laboratory, which led to the preparation in 1896 of mercurous nitrite in well crystalline and stable form—a very interesting compound unknown till that time. This was followed by a long line of investigations on mercurous nitrite and its numerous derivatives as also on the nitrites in general. Preparation of mercurous nitrite brought Prafulla Chandra recognition from abroad and he received congratulatory and appreciative letters from eminent chemists like Roscoe, Divers, Berthelot, Victor Meyer, Volhard and others, which inspired and stimulated his further activity.

In 1897, he was asked by the Bengal Government to join the Rajshahi College as its Principal. The acceptance of this executive post as the head of a first grade college would have meant an elevation for him within the cadre of his service owing allegiance to no immediate boss overhead. But it would, however, have stood in the way of his collecting materials for compiling the *History of Hindu Chemistry* on which he was then engaged and for which the use of the library of the Asiatic Society of Bengal was indispensable. The development of his new industrial venture, the Bengal Chemical and Pharmaceutical Works, would also



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have suffered a serious set-back thereby. Hence, Prafulla Chandra respectfully declined this coveted offer and wrote to the Director of Public Instruction intimating his unwillingness to leave Presidency College, where, as a member of the Provincial Service, he would gladly serve as a junior professor. For, he did not want to sacrifice his interest in research and study for the sake of pelf and position.

With the recognition of Prafulla Chandra's work on mercurous nitrite and the foundation of research scholarships by the Government of Bengal, students after taking their M.Sc. degree in chemistry were attracted to carry out research work under him, as this might enable them to improve their qualifications by appearing for Doctor's degree in science or for Premchand Roychand Studentship of the University. This also brightened the prospect of their employment in Government services. Moreover, the joy and delight of seeing their papers published in the chemical journals of England, Germany and America served as an incentive. The nucleus of an Indian School of Chemistry was thus formed and began to grow with years. Jatindra Nath Sen was the first research scholar under him who collaborated in his investigations on mercurous nitrite. Sen was followed by Panchanan Neogi in 1905, and Atul Chandra Ghosh. His lecture-assistant Atul Chandra Ganguli also rendered him valuable assistance in his work.

It has been stated before that Prafulla Chandra had a predilection for the study of literature and history. History of science and particularly the history of chemistry had always a fascination for him. After joining the Presidency College he found better opportunities for such studies, and began to indulge in his favourite hobby of antiquarian researches—researches into the history of chemistry including the lives of the great masters and makers of that science. His curiosity prompted him to read some of the original Sanskrit works quoted in Udoychand Dutt's *Materia Medica of the Hindus* (1877) in which an account of many metallic preparations used by the Ayurvedic physicians is given. A study of Berthelot's *L'Alchimistes Grecs* (the Greek alchemy), obtained from the Presidency College library, further stimulated his interest and he started correspondence with the great French chemist intimating to the latter that in ancient India also the study and practice of alchemy were zealously pursued. The reply from the illustrious French savant in 1897 asking for detailed information about Indian alchemy stirred Prafulla Chandra to fresh activity. A paper based on the introductory chapters of *Rasendrasāra Samgraha* was soon sent to Berthelot by Prafulla Chandra in response to his (Berthelot's) appeal. Berthelot published an elaborate article in the *Journal des Savants* based on Prafulla Chandra's manuscript with a highly appreciative acknowledgement of his (Prafulla Chandra's) investigation on the subject. A few copies of the reprints of this article together with three ponderous volumes of his encyclopaedic work on Syriac, Arabic and Middle-age alchemy were presented by Berthelot to



Prafulla Chandra. A study of these books served as a further stimulus to awaken in Prafulla Chandra's mind an idea of writing a history of Hindu chemistry on the model of Berthelot's work. As a result of persistent study and toil for several years coupled with a vigorous search for Sanskrit manuscripts in various libraries of India, and in the India Office, London, the first volume of the *History of Hindu Chemistry* was published in 1902, followed by a second enlarged and revised edition in 1904. The second volume of the book which was dedicated to the memory of Berthelot, came out in 1909 and its second edition in 1925 in an enlarged and revised form. This monumental work, the product of a vast amount of labour and extensive learning, has rightly been acclaimed as a valuable contribution to the history of science. Berthelot in a critical review of the first volume of the book, which covered 13 pages of the *Journal des Savants* (January 1903), concluded with the words :

"A new and interesting chapter has been added to the history of sciences and human progress, a chapter particularly useful for the recognition of reciprocal intellectual relation that has existed between the civilization of the East and the West."

Sir Henry E. Roscoe, a great English chemist of the age, observed after reading Vol. I of the book :

"I consider that the work is a most interesting and valuable contribution to chemical history, and exhibits an amount of learning and research which does the author the greatest credit".

In 1912 while conferring the Honorary degree of D.Sc. of the University of Durham on Prafulla Chandra, the then Vice-Chancellor of that University took occasion to say :

".....His fame chiefly rests on his monumental *History of Hindu Chemistry*, a work of which both the scientific and linguistic attainments are equally remarkable and of which, if of any book, we may pronounce that it is definitive".

In course of his review of the second volume, when first published, Prof. Sylvain Levi observed in the *Journal Asiatique* as follows :

"Prof. Rây is an excellent Sanskritist.....he is familiar with the languages of the West and is quite at ease with works written in Latin, English, German and French".

This book has proved to the scientific world, by reference to the old Sanskrit texts, the antiquity of the knowledge of chemistry in India and of several chemical processes unknown to the rest of the contemporary world. The production of steel, the distillation of zinc, the preparation



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of caustic alkalies, the sublimation of the red sulphide of mercury, etc. serve as notable illustrations.

During this time Prafulla Chandra came in contact with many eminent Indians, who are regarded as makers of modern India. He came in touch with Ananda Mohan Bose and Surendra Nath Banerjee whom he held in great regard. With Pandit Sivanath Shastri, the leader of the Sadharan Brahmo Samaj, he was closely associated. In 1901 Prafulla Chandra for the first time came in personal contact with Gopal Krishna Gokhale through his friend Dr. Nilratan Sarkar. Gokhale was then a most powerful political leader in the country. Because of their common ideals of service and sacrifice for the country, a relation of mutual sympathy and understanding between them was established in no time and they became fast friends.

Towards the end of 1901, Mohandas Karamchand Gandhi (afterwards Mahatma Gandhi) visited India from South Africa. He came down to Calcutta and stayed as a guest of Gokhale. Prafulla Chandra happened to meet Gandhi at Gokhale's place and felt a strong attraction for him (Gandhiji) at the very first sight, presumably because of their common habits of life characterized by simplicity and even of austerity, of their common solicitude for human welfare, and of their common disregard for wealth, power or position. Closer association with Gandhi made a deep and lasting impression on Prafulla Chandra, and, as we shall see later, his intimacy with, and esteem for, Gandhiji grew in intensity as the years rolled by. It was at Prafulla Chandra's initiative and insistence that a public meeting was organized at the Albert Hall on that occasion where Gandhiji spoke about the disabilities under which the Indian settlers in the Cape laboured. The well-known Calcutta daily, the *Englishman*, also took up Gandhiji's cause and a report of the meeting was published in its issue of January 20, 1902. *

Prafulla Chandra's interest in public activities and his concern for the welfare of his own countrymen were stimulated by his contact with these eminent Indian leaders of the time. Stated in his own words, the example of Gandhiji made him realize that "*truth lived is a far greater force than truth merely spoken*".

In 1904 Prafulla Chandra proceeded to Europe on a study tour and visited many well-known chemical laboratories. In the United Kingdom he worked for some time in the Davy-Faraday laboratory and visited the chemical laboratories of the Imperial and University Colleges of Science in London. Here he came in close contact with Sir James Dewar and Sir William Ramsay, and acquired a first-hand knowledge of the epoch-making experiments they were engaged in at that time on the liquefaction of gases and the separation of the rarer gases of the atmospheric air. He also visited the chemical laboratories at Leeds, Manchester and



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Birmingham making acquaintance with many distinguished investigators in chemistry like Professors Dixon, Perkin, Frankland and others. The University of Dundee and his old University of Edinburgh were also included in his tour. In Europe he visited the celebrated Technische Hochschule and Reichsanstalt in Berlin where he came in close touch with Erdman, Professor of Inorganic Chemistry, at the Hochschule and with Professor van't Hoff, one of the leading masters of physical chemistry of the age. In Paris, Prafulla Chandra came in closer touch with the illustrious French chemist, M. Berthelot, and also with the great indologist, Prof. Sylvain Levi, with both of whom he had previous correspondence. Berthelot received him very warmly and took him round his laboratory. Prafulla Chandra also visited the laboratory of Prof. Moissan, the great inorganic chemist, famous for his preparation of artificial diamond and the discovery of calcium carbide.

This visit to Europe strengthened his conviction that the study of science and pursuit of scientific research with application of science to the requirements of everyday life were urgently needed for the regeneration and progress of India. In Bengal, which was then passing through an intellectual renaissance, he found a congenial atmosphere for instilling the spirit of scientific enquiry into the mind of its youths. There was ferment in every field of human activity, signifying the dawn of a new era. The political consciousness of Bengal was awakened by the advent of leaders like Surendra Nath Banerjee, Ananda Mohan Bose and others with the introduction of English education helping to foster the growth of the idea of nationalism. In the cultural and social fields the Brahmo Samaj movement with leaders like Keshab Chandra Sen and Sivanath Shastri was working for the abolition of caste system, the removal of social inequalities and the emancipation of women,—the ideals set forth earlier by Raja Rammohun Roy. Writings of Madhusudan Datta, Iswar Chandra Vidyasagar, Bankim Chandra Chatterjee and others had already given shape to the Bengali literature, which had also been enriched with translations from English scientific books by outstanding writers like Akshaya Kumar Datta, Bhudev Mukherjee, Rajendra Lal Mitra and others. A new world was being opened with new aspirations awakened. The genius of Rabindranath Tagore also was beginning to make itself felt. • It cannot be denied that the impact of the West and the East brought these striking results in the intellectual revival of Bengal which remained dormant and fallow for ages, overgrown with rank weeds and brambles. The field was thus ready for the awakening of a scientific spirit. In 1876, Dr. Mahendralal Sarkar founded his Indian Association for the Cultivation of Science with a view to popularizing science and its achievements, as well as to provide for advanced scientific research in the country.

• In these favourable circumstances Jagadis Chandra Bose and Prafulla Chandra Rāy appeared on the scene to initiate the spirit, and foster the

growth, of scientific researches. Bose's reputation had been established as an investigator of high order by the publication of his work on Hertzian waves. His fertile and inventive genius, and his remarkable originality were recognized ere long by the world of science. As stated before Prafulla Chandra was gradually winning recognition abroad by his work on mercurous nitrite and on the chemical knowledge of the ancient Hindus as revealed in his great book, the *History of Hindu Chemistry*. On returning from his study tour in Europe, Prafulla Chandra devoted himself with increased zeal to research work and to the building up of a school of chemistry which would find its place in the world of chemical science side by side with that of the more advanced countries of Europe and America. Inspired by his example and precepts, and above all by his spirit of dedication to the cause of chemistry and to the service of the country, students of great talents and parts, often with brilliant academic career, joined his laboratory to carry out research under his tutelage. Thus a devoted band of workers always gathered round him in the laboratory and it became "the nursery from which issued forth the young chemists of New India". Out of many of them, who made their mark later as chemists of distinction in the country, mention may be made of Hemendra Kumar Sen, Biman Behari Dey, Nilratan Dhar, Rasiklal Datta, Jitendra Nath Rakshit, Jnanendra Chandra Ghosh, Jnanendra Nath Mukherjee and many others.

In 1912, Prafulla Chandra visited England to represent the University of Calcutta along with his friend Devaprasad Sarvadhikary as delegates to the Congress of the Universities of Empire, held in London. In his speech on the occasion he pleaded for increased facilities for admission of the Indian students for their post-graduate studies in British universities, and for a more generous recognition of the Indian university degrees. In London he read a paper before the Chemical Society on one of his recent work, the vapour density of ammonium nitrite. Sir William Ramsay congratulated him on his fine work and Dr. V. H. Veley welcomed him as "an illustrious representative of a great Aryan nation which had attained a high degree of civilization and discovered many chemical processes when this country was but a dismal swamp". He concluded by paying a warm tribute to Dr. Rây and his pupils for their valuable researches on ammonium and amine nitrites. In fact, he was named 'Master of Nitrites' by Professor Armstrong in 1914.

Prafulla Chandra visited on this occasion the University of Cambridge, and a few other northern universities including those of Sheffield and Durham. The University of Durham, as already stated, conferred on him the Honorary Degree of D.Sc. In the same year (1912) the British Government honoured him by making him a C.I.E. (Companion of the Indian Empire).

While still in England, Prafulla Chandra received a letter from Asutosh



Mookerjee, the great Vice-Chancellor of the Calcutta University, inviting him (Prafulla Chandra) to be the first University Professor of Chemistry in the proposed University College of Science. Prafulla Chandra accepted the offer and on his return to Calcutta saw the Vice-Chancellor and signified his intention to join the University College of Science as soon as it was started.

Resuming his duties at the Presidency College after his return from England he continued to promote the spirit of chemical research and consolidate the growth of the Indian school of chemistry of which we have spoken above. It might be mentioned here that Mr. E. R. Watson, Professor of Chemistry at Dacca, inspired a band of young chemists, who made their mark in later life, and thus also contributed in some measure to the growth of the Indian school of chemistry. Unfortunately Dr. Watson did not work at Dacca for many years. In 1916 Prafulla Chandra retired from the Presidency College, a year earlier than his time of retirement, to join the newly founded University College of Science as Palit Professor of Chemistry. The students of the Presidency College presented him an address on the occasion. This was couched in words of profound appreciation of his service to the College and the country for the cause of scientific study and research, of his successful efforts in revealing the glorious achievements of ancient Indians in the pursuit of chemistry, and above all of the example of his celebrate life of sturdy simplicity with genuine patriotism. Prafulla Chandra made an equally impressive reply expressive of his deep feeling for the institution which formed the field of his activity for the best part of his life and which brought him whatever honour he could claim in the scientific world for himself and his pupils.

PROFESSOR AT THE UNIVERSITY COLLEGE OF SCIENCE, CALCUTTA

In the University College of Science Prafulla Chandra's research activities multiplied manifold in a more free and congenial atmosphere and took a variety of directions with the recruitment of many new earnest and enthusiastic workers. In recognition of his distinguished service as teacher and investigator in chemistry as well as of his pioneering work in the development of chemical industries, the British Government honoured him with Knighthood in 1919.

In the first few years at the College of Science he had to work under great handicaps because of poor equipment and lack of necessary apparatus, chemicals, etc. For, under the terms of the Palit and Ghosh deeds of gift, neither the corpus of the endowment nor the income accruing from it could be utilized, except to a very restricted extent under special circumstances, for purposes other than the salaries of professors and stipends of the scholars. Expenses for the buildings, appliances, apparatuses, etc., and for their upkeep, including the running expenses of the laboratories,



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had to be provided by the University. The latter had unfortunately no fund for the purpose. The building of the Science College was, however, completed with the accumulated surplus of the University fee fund. Money had, therefore, to be found for the other needs. The desperate efforts of Asutosh Mookerjee to secure an adequate grant from the State bore little fruit. This antipathy on the part of the State towards the University College of Science, Calcutta, in the face of generous grants to similar institutions (Institute of Science, Bangalore, and the Royal Institute of Science, Bombay) gave a clear indication of its dislike of, and resentment at, the clause in the deed of gift stipulating that 'none but Indians, born of Indian parents, should be eligible for the professorships.' But it is said that necessity is the mother of invention. The financial difficulties likely to hamper the research work were, however, more than compensated by the zeal and devotion of the workers, who with a spirit of dedication and nationalism spared no pains in carrying on their investigations with the available resources and improvised apparatuses. Prafulla Chandra himself was a living example of economy and by his untiring remonstrances and banter he would not fail to impress its virtue upon his colleagues and pupils. A water tap left open in the laboratory by anybody, a gas burner kept burning by itself, a filter paper wasted, a fan in motion without anybody in the room, and similar other minor acts of negligence, when noticed by him, would work him up into a fury; and woe betide the culprit if detected. Often a vicarious punishment was prescribed, e.g. a lecturer paying for the lapses of his ward. As a result, the University College of Science earned ere long the recognition of becoming an active centre of chemical research in India, and the number of original publications from Prafulla Chandra's laboratory continued to increase.

At the Congress of the Universities of the Empire held at Cambridge in 1929, which he attended as a delegate of the Calcutta University, Prafulla Chandra, speaking on the subject of 'The State and the University', did not fail to bring to the notice of the President of the Congress, Lord Balfour, and the delegates present the most niggardly treatment received by the University College of Science in Calcutta from the State. His research activities in Science College were maintained almost unabated for about 20 years till he retired in 1936 at the age of 75. It is quite in the fitness of things that his pupils and admirers are accustomed to look upon him as the 'Father of Indian Chemistry.' After joining the University College of Science Prafulla Chandra had taken his abode in a room of the college building and his household consisted of a number of research workers who could not afford to stay outside and meet the expenses for their board and lodging.

On the completion of his 60th year in 1921 Prafulla Chandra wrote to the authorities of the University making a gift of all his salary from that date onward as long as he would be entitled to it by the retention



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of his service. It was stipulated that the money accumulated thereby should be spent for further extension and development of the Department of Chemistry in the University College of Science and Technology, as well as for the creation of two Research Fellowships in chemistry in his name with a value of Rs. 200/- per month for each. The total value of this gift amounted to about Rs. 1,80,000/-. In 1922, he made a further endowment of Rs. 10,000/- for an annual research prize in chemistry named after the great Indian alchemist, Nāgārjuna. A second endowment of Rs. 10,000/- was made at the time of his retirement in 1936 for a research prize in zoology and botany, named after Sir Asutosh Mookerjee.

In 1920, Prafulla Chandra was elected General President of the Indian Science Congress. Honours came to him off and on from different quarters. The universities of Calcutta, Dacca and Benaras conferred on him the Honorary Degree of D.Sc. The Deutsche Akademie of Munich elected him an Honorary Fellow of their organization, and the same honour was extended to him by the London Chemical Society in 1934.

Prafulla Chandra was the first President of the Indian Chemical Society, which was founded in 1924. He was re-elected for another term. The Society was started with a handsome donation of Rs. 10,000/- from him towards its building fund.

In course of his reply to the message of congratulation to the newly formed Society from the President and the Council of the London Chemical Society, Prafulla Chandra made the following observations as President of the former body.

"More than 40 years ago, while a student at Edinburgh, I almost dreamt a dream that, God willing, a time would come when modern India would also be in a position to contribute her quota to the world's stock of scientific knowledge, and it has been my good fortune to see my dream materialize." •

Acharya Prafulla Chandra was the first President of the Indian Science News Association which was started in 1935 with his active sympathy and advice to guide the course of its organ, *Science and Culture*, which set before itself the task of propagating among the people the message of science in its social, cultural, national and international implications.

LITERARY INTEREST

Though Prafulla Chandra made chemistry his first love, as he used to say, his predilection for, and interest in, the study of literature and history were never found to wane. In fact, he was often heard to observe that he became a chemist by pure accident. Shakespeare, Madhusudan,



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and Rabindranath were his favourite poets from whose writings he could quote from memory at any time on any particular theme. In prose, Emerson and Carlyle had great fascination for him. In 1932 the first volume of his autobiography, *Life and Experiences of a Bengali Chemist*, was first published. It was dedicated to the youth of India with the hope of stimulating their activities. Professor Armstrong reviewing it in *Nature* wrote :

"From beginning to end the message of the book is one of the highest endeavour—pulsating with vitality and intellectual force."

The second volume of this work was issued a few years later in 1935. These volumes furnish ample evidence of his knowledge of literature and history, and demonstrate that his hand could wield the pen in the literary field with as much ease as the test-tube in his chemical experiments.

A Bengali version of the book, prepared by himself, was published in 1937 under the title, *Atma Charit*.

In due recognition of Prafulla Chandra's interest and efforts in the advancement and enrichment of Bengali language he was elected General President of the Bengal Literary Conference in 1910. He also presided over the Science Section of the Conference subsequently on two different occasions in 1913 and 1914. Bangiya Sahitya Parishad elected him President of the Parishad to conduct its activities during the period 1931-34.

At the Presidency College, while working in the laboratory Prafulla Chandra often used to cite from his memory passages from Shakespeare, Madhusudan and others among his favourite poets and writers. Once, he quoted the following lines from Madhusudan's writings :

“अरे बाळा, मातृकोषे रत्नेर राजी,
ए भिखारी दश तवे केन तोर आजि ?”

My child, there are plenty of jewels in your mother's coffer, why are you then reduced to the state of a beggar?

He then asked one of his seniormost research workers, who in later years became a distinguished chemist and held a high office in the Government Service, to name the writer of those lines. On the latter expressing his ignorance about it, down came the Master on his pupil with his invectives of sub-acid humour, followed by a physical demonstration of his displeasure in the shape of slaps and blows, his way of expressing annoyance, and love at the same time.



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PUBLIC ACTIVITIES

Ever since joining the University College of Science, Prafulla Chandra devoted a portion of his time and energy to public activities relating to education, health, social service and economic uplift of the people. In times of national emergencies he would not even hesitate to participate in politics, though in an unobtrusive and passive manner, with his moral support behind the front rankers. Nevertheless, he presided over the Utkal Provincial Conference in 1923; and his well-known retort on a memorable occasion, "Science can afford to wait but Swaraj cannot" gives a measure of his feeling on the subject. He always used to extend his sympathy to the extreme nationalists in the country. Within the limited space at our disposal only a bare outline of his public activities will be given here, leaving the details for the special sections that would follow. For, these activities, it might be stated, reveal the spirit of the man beyond the exterior dynamics of his body and mind.

(a) Education

In matters of education Prafulla Chandra would attach little value to university degrees and would never cease to condemn the 'degree-hunting mania' and 'insane craze' for an academic hall-mark usually shown by young men of the country. This is correctly attributed by him to the ingrained belief of the students, and specially of their guardians, that the university degree is the only passport to a Government job or to a professional career. The miserable straits to which the holders of the university degrees were reduced thereby and the poor market value of their degrees leading to consequent unemployment and failure in life, moved him strongly and made him plead in no uncertain terms for a radical change in the scheme of our university education. The universities in India, he observed, are simply engaged in the mass production of graduates, which means a gain in quantity at the cost of quality. In his opinion, an average graduate is no better than a licensed ignoramus. He was particularly of the view that the present university education makes its recipients an inefficient business man. For, young people with university degrees are usually inclined to hold manual work in contempt, and this he regarded as a great national danger. It was his considered view that "no one should choose a university career unless he feels that he has an instinctive call in that direction. A university should be a centre of scholarship, research and culture. Let those alone seek the portals of the academy who are prepared to dedicate their lives to the enlargement of the bounds of knowledge."

The undue stress on the literary side with a more or less total neglect of the vocational aspect was considered by him as a great defect of our university education. On many occasions he was found to exclaim: "If I am made the dictator of the university for one day, I would shut down the Law Department for at least three years."



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(b) Unemployment and Bread Problem

The system of instruction through the medium of a foreign tongue was regarded by Prafulla Chandra as one of the major defects in our secondary education, as it is bound to lead to a colossal waste of energy. This was particularly stressed by him in his Convocation Address at Mysore in 1926. It cannot be denied that the habit of free and independent thinking and the power of expressing original ideas can seldom be inculcated without the adoption of mother tongue as the medium of instruction. The standard of efficiency in our schools and colleges therefore suffers in comparison with those of free nations with past histories. To use Prafulla Chandra's words "the book of knowledge can readily be mastered in one's own vernacular."

He was a great supporter of national education and was elected President of the National Council of Education as a successor to Sir Ashutosh Chowdhury on the latter's death. The National Council of Education was established after the partition of Bengal as a protest against the educational system in vogue under the control of a foreign government which was inimical to the national movement for freedom.

The problems of poor health of the Bengali students and of unemployment of Bengali youths, generally known as bread problem, were his great concern as long as he was physically fit and mentally alert. He had discussed these problems in speeches from numerous platforms and in articles, published in a number of daily papers and monthly journals. He always used to deplore the lack of a spirit of enterprise and a business instinct in Bengali character, which are the two essential elements needed to ensure success in trade, commerce and industries. The Bengali, as a rule, is more idealistic, emotional and sentimental than practical. A Bengali youth can be easily ignited like straw, but is easily extinguished like the latter giving very little light. He would never cease to complain about, and condemn, the ease-loving nature of the Bengali youths, always afraid of hard work or of taking any risk, and his false sense of dignity. The ambition of a Bengali youth is fulfilled by his securing a safe job with a guaranteed salary like that of a 'glorified clerk,' a term used by Prafulla Chandra to include Munsiffs, Deputy Magistrates, "Inspector-Generals, Accountant-Generals, Personal Assistants, etc. He" was always heard to say that the failure of the Bengalis in winning the "battle of life is mainly due to want of enterprise and to lack of their industrious habits and initiative.

Besides the Bengal Chemical and Pharmaceutical Works Ltd., which was his own creation, Prafulla Chandra was connected with a large number of industrial and business concerns either as a Promoter, Director or Patron. These include cotton mills, soap works, sugar works, chemical industries, pottery and porcelain, steam navigation, book companies, etc.



Almost every industrial enterprise in Bengal had his blessings and encouragement. He never ceased to urge the Bengali youth to take to business and industries and to emulate the example of their hard-working brethren from Marwar. The pre-eminence of Bombay and the activities of Parsis, Sindhis and Gujaratis in this respect were frequently cited as examples and stressed upon by him.

Prafulla Chandra used to hold the view that industries should precede the establishment of technological institutes. According to him it is a great illusion to expect large industries to develop immediately on the establishment of technological institutes in the country. Nobody can drive forward by putting a cart before the horse. In his capacity as a member of the Chemical Service Committee after the First World War, he submitted a strong note of dissent to this effect. Knowledge of technology and results of chemical research can only be applied for the development of industries already in existence. In every country the growth of industry has preceded the progress in science and technology. It seems there is some element of truth in this view as demonstrated by the poor results obtained from the multiplicity of technological institutions recently established in the country, so far as the starting of new industries is concerned. They can only supply trained personnel for running the industries already planned and in working order.

(c) Social Service and Charity : Famine and Flood Relief :
Charkha and Khadi

It is no exaggeration to state that social service was a mission of Prafulla Chandra's life. This was the mainspring, so to say, of all his public activities. We find its manifestation even in his early college days when he had joined the Albert School (founded by that great leader of the Brahmo Samaj, Keshab Chandra Sen and his associates). It was the lofty ideal of service aiming at the removal of all social barriers (caste system, etc.) and social prejudices which attracted him most and made him a convert and follower of that newly founded religious system.

Throughout the entire period of his active service in life Prafulla Chandra used to give away freely the major portion of his income to poor students. He wanted little and kept even less for himself. The City College, Calcutta, and the Bagerhat College in the district of Khulna received considerable financial help from him. He made a gift of his shares in the Bengal Chemical and Pharmaceutical Works, Ltd. and in other firms, having a market value of about Rs. 70,000/- at the time, by a trust deed, so that the profit therefrom might be utilized for the benefit of poor widows, orphans, and for hand-spinning and production of Khadi. He made the Sadharan Brahmo Samaj the residuary legatee of his properties and also left a large sum for the maintenance and improvement of a high school in his native village of Raruli, founded in the name



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of his father, Harish Chandra Ray. It might be of interest to quote here Mahatma Gandhi's observation on the occasion of his 70th birthday celebration.

"It is difficult to believe that the man in simple Indian dress and wearing simpler manners could possibly be the great scientist and professor he even then was (in 1901). And it took my breath away when I heard that out of his princely salary he kept only a few rupees for himself and the rest he devoted to public uses and particularly for helping poor students. Thirty years have made no difference to the great and good servant of India. Acharya Rây has set us an example of ceaseless service, enthusiasm and optimism, of which we may well be proud".

Prafulla Chandra was a pioneer of social reform in the country. Long before the movement against untouchability was launched by Mahatma Gandhi, Prafulla Chandra by his numerous speeches and writings used to fight against this and many other social evils like caste system, child marriage, dowry system, communalism, purdah system, etc. Even in his class lectures he would often bring home to his pupils the baneful effect of these evil customs and practices in the society. These, he used to explain, have succeeded in merely cramping our intellect, clouding our reason and narrowing our vision, and have become the great stumbling block in the path of our national progress and social freedom. These have enslaved our mind and confined our soul in a cage. As early as 1917 he presided over the Indian National Social Conference in Calcutta when he exhorted the people to unite and do away with untouchability, as India divided within itself could never aspire after independence. He was a great exponent of Hindu-Moslem unity and of the fusion of all communities into one great Indian Nation. A better idea of his feeling in this matter can be obtained from his own words:

"India has to pay dearly for her folly. Apart from the fact that caste system has been the means of keeping talent confined to a microscopic minority of the population, it has always been a fruitful source of internal dissension and fratricidal strife. In a word, more than anything else it has been a chief stumbling block in the growth of Indian nationality. It has also worked incalculable mischief in a thousand and one ways".

He did not believe that the miracle of political freedom can occur with the social slavery still in a domineering condition. He, therefore, fought for the emancipation of women, for the restoration of their dignity, and for the equality of opportunities to them for fulfilment and enrichment of their life. In a word, Prafulla Chandra raised his banner of revolt against all old effete and evil social customs. He would brook no injustice and irrationality, and respect no tutelage. He was liberal in his ideas and catholic in outlook. Being a scientist, he maintained a scientific



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attitude of mind. With a mind trained in scientific discipline Prafulla Chandra was not a mere idealist, but always tried to realize his ideal by constructive and practical work. This is best illustrated by the unprecedented success he had attained by his efforts for organizing relief for the suffering humanity affected by any natural calamity—famine, flood or earthquake. On the occasion of his 70th birthday celebration his intimate friend and colleague, Sir J. C. Bose, therefore rightly wrote about "his dual capacity as a path-finder (in the field of research) and originator of work of great utility (in the field of industry and public welfare service)".

Owing to the failure of crops in two successive seasons a famine broke out in 1921 in a part of the Khulna district adjoining the Sunderbans. The Government was rather apathetic inspite of the piteous appeal of the afflicted people and of the agitation in the press and on the platform. Prafulla Chandra came to the rescue, organized relief, and issued an appeal to the public for help. The response was very generous, and many public leaders and volunteers offered co-operation working under his banner.

In 1922, a great disaster overtook North Bengal. Owing to a continuous heavy rainfall for about a week in September all over the basin of the river Atrai, the river overflowed its banks and submerged the surrounding villages. The railway lines near Parbatipur were under water with a breach in the railway embankment at Akkelpore. A wide area was converted into a vast sheet of water. Extensive damage to the crops and property and destruction of cattle followed in its trail. At a meeting of the leading citizens, both Europeans and Indians, of Calcutta, a relief committee was formed with Prafulla Chandra as its President. It was estimated that in one subdivision alone something over sixty-thousand dwellings were destroyed. Rajshahi and Bogra districts were seriously affected, and the district of Pabna too did not escape from a substantial damage. The total loss in the flooded area was estimated at about six crores of rupees.

The building of the University College of Science in Calcutta was converted into a relief centre with Prafulla Chandra's colleagues and research students serving as relief officers and volunteers in different capacities. They were reinforced by leading public workers, including Subhas Chandra Bose. The work went on regularly from morn till midnight every day in various sections like the general office, the treasurer's office, the stores, the despatch department, the stations for receiving donations, the publicity bureau, etc. Appeals were sent to all parts of India and even abroad. "The vast organization worked on with clock-like regularity and precision." A sum of over seven lakhs of rupees was collected in a short time and splendid service was rendered to the people in distress. Prafulla Chandra was the life and soul of this organization.

A considerable portion of North and East Bengal was again devastated

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in 1931 by another flood of greater magnitude, which worked havoc. Like an avalanche it swept away everything before it. Prafulla Chandra was again called upon to organize and shoulder the burden of relief operations. As on the previous occasion the University College of Science became the office of the relief organization under the name *Sankat Tran Samity*. Prafulla Chandra with his devoted colleagues and a band of selfless volunteers threw himself whole-heartedly into the task and in response to his appeal contributions came pouring in. In flood-relief work Prafulla Chandra found in his colleague and right-hand man, Satis Chandra Das Gupta, a very resourceful, able and trusted lieutenant. On reading Prafulla Chandra's appeal to the philanthropic citizens of Bombay for contribution to the relief fund, Gandhiji wrote two long letters to him and to Satis Das Gupta, and gave the following parting message to Bombay on the eve of his departure for confinement in jail :

"I hope people of the Bombay Presidency will go to the rescue of flood-stricken Bengal and send their contributions to Dr. P. C. Rây".

In recognition of Prafulla Chandra's earnestness in flood-relief operations Gandhiji used to call him 'Doctor of Floods'.

Prafulla Chandra achieved remarkable success in organizing all these relief operations, because all his countrymen—high and low, rich and poor, urban and rural—used to entertain an implicit confidence in his ability, integrity and selflessness. For, he was a rare example of the happy combination of all these noble traits of human character in one and the same person.

Professor F. G. Donnan of the University College of Science, London, in a letter to Prafulla Chandra (March 2, 1921) wrote as follows :

".....the fundamental factor of progress (for India) will depend on the unceasing progress of pure science and its unceasing application to the building up of human welfare. I regard you as a pioneer in this matter, as well as in the question of the reform of social conditions, and I think that in ages to come your name will be remembered and honoured as one of the greatest and most modest pioneers of Indian intellectual, social and industrial renaissance. I am not saying these words with any desire to flatter you, but simply to express the opinion of those who know of the work which you have done and continue to do."

This undoubtedly constitutes a true assessment of his work made by a competent person in a responsible position as early as 1921.

During the days of flood-relief operations when the whole country was awakened by inauguration of the Non-Cooperation Movement led by



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Gandhiji one of the essential items prescribed in the programme of the movement was the use of the spinning-wheel (*charkha*) by every villager and the wearing of home-spun cloth by every Indian. Prafulla Chandra, a pioneer worker in the development of large-scale industries on a scientific basis in the country, first scoffed at the "very idea of this primitive, uncouth instrument competing with modern machineries". But from his experiences of the condition of villagers during his tour of the flood-stricken areas in 1922-23 he was soon convinced of the efficacy of spinning in every rural household, where even the peasants find no gainful employment for about 6 months in a year, i.e. from the time the collection of harvest is over till the date of fresh cultivation of the soil with the advent of monsoon. For the others, who are landless, their odd hours of unemployment are much greater in number. How to give employment to these millions of villagers in India and save them from semi-starvation? Development of heavy industries with modern machineries is not quite easy and will take a long time to provide employment even to an appreciable proportion of this teeming and ever-increasing population of the country. Prafulla Chandra became in no time an ardent follower of Gandhiji and immediately started propaganda for the plying of the spinning-wheel (*charkha*) in every village home as "the poor man's insurance against famine". He became a passionate exponent of this new idea and a devoted worker for its implementation in a constructive manner. He himself started spinning every day for about one hour in the afternoon with religious regularity after the day's work and used nothing but home-spun articles for himself till the end of his life. In this task of spreading the message of Khaddar or Khadi (home-spun articles), Prafulla Chandra found in his colleague Satis Chandra Das Gupta a very loyal assistant of great constructive ability, who practically dedicated himself to the cause of Khadi and the development of village industries and is still an active and well-known figure in India.

Prafulla Chandra's passion for *charkha*, inspite of his being a scientist and an ardent advocate of large-scale industries involving the use of modern machineries, often earned for him from his friends and pupils some amusing designations like Sir Khaddar (for Sir P. C. as usually called by his pupils) and *Charkharshi* (from *Charkhā*+*Rishi*, meaning saint). The last named term was used by his friend Acharya Brajendra Nath Seal, when addressing him a letter in which he was invited to deliver the convocation address of the University of Mysore (a copy of the original letter is given in the appendix). The great pioneer of chemical industries thus became in his later life an ardent advocate of spinning and weaving by the primitive methods.

RELATION WITH PUPILS

Prafulla Chandra's relation with his pupils was always close and cordial, transcending the mere normal admiration and respect from the



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pupils and good wishes from the master. There was nothing that he would not disclose to his pupils, who regarded him as their friend, philosopher and guide. He used to mix freely with his pupils as equals and maintained in some sense the tradition of the ancient Indian *Gurus*. Nothing would have given him more delight than the news of any achievement or recognition of any of his pupils. He would simply dance with joy on such occasions and would repeat his favourite saying:

‘सर्वत्र जयमन्विषेत् पुत्रात् (शिष्यात्) इच्छेत् पराजयम् ।’

One should seek victory from all quarters, but defeat from his sons (disciples).

PERSONAL HABITS AND DAILY LIFE

Being a confirmed dyspeptic from an early age and sufferer from occasional insomnia Prafulla Chandra had a feeble health and a frail body. Nevertheless, he had done a prodigious amount of work in his life. For, he would follow a rigid regimen with strict control over his diet and habits, and would always keep himself alert on the economy of time. There was an air of sanctity about his daily time-table and he would tolerate no interference. This he regarded as the secret of his success. His main recreation and exercise consisted of a regular brisk walk followed by a rest for one hour or two in the Calcutta Maidan every evening, which he would never miss. There under the statue of Lord Roberts (recently removed) he would rest surrounded by his friends and pupils. The gathering was named Maidan Club or evening conference, as all subjects under the sun were discussed there freely and solutions offered with an air of confidence and finality. All members, old and young, were equally free and at liberty to participate and give their opinion without any reservation. Principal Girish Chandra Bose, Satyananda Bose, Krishna Prasad Basak and Kaviraj Nagendra Nath Sen were the regular attendants among the elders; of the youngers, besides his pupils, the name of Principal Devaprasad Ghosh deserves particular mention. Occasional visitors were numerous, and these included many eminent personalities of the land. Satyananda Bose would remain standing while all the others would squat on the ground. He was therefore named, ‘Standing Counsel’ of the club by Prafulla Chandra. Politics—national and international, war and peace, history, literature, philosophy, economics, sociology, science and technology, trades, commerce and industries, religion, education, etc., nothing escaped the notice of the Maidan Club and no leading figure of the world would be exempted from its critical assessment.

Prafulla Chandra would wear very simple Indian dress, seldom ironed, and often verging on shabbiness and at times even tattered, with complete indifference to all manners, appearances and conventionalities. He would resent taking service from the servants and in fact was often found to wash his own clothes and brush his own shoes. His household, as already



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stated, consisted of a few of his own pupils, who were often reinforced by outside students unable to afford their own food. One of his own pupils acted as his secretary in charge of the management. He used to live in a room on the first floor of the University College of Science at the south-west corner of the southern wing. It served the combined purpose of a living-, dining-, and bed-room.

Prafulla Chandra was accessible to all and built no artificial barrier of greatness around him; he could identify himself with the common men and share their joys and sorrows. As long as health permitted he used to spend his long vacations or holidays with common people in his native village in Khulna. Because of his single life and ascetic habits he was regarded as a saint of science by his countrymen who would love to call him Acharya Prafulla Chandra Rây. His dedicated life and self-denying service for the regeneration of India entitles him to a place in the front rank of our nation-builders. This was recognized even as early as 1919, as will be evident from the following lines quoted from what the great British chemist, Sir Edward Thrope, wrote about him in *Nature* (March 6, 1919).

"Her (India's) elevation will not come in Sir Prafulla Chandra Rây's time. A small, spare man, in feeble health, and a confirmed dyspeptic, he will be spent in her service. But the memory of these services will survive".

Sir Edward's prediction has, however, narrowly escaped falsification. For, India attained her independence only three years after Prafulla Chandra's death.

In 1932, on the completion of his seventieth year, the Indian Chemical Society presented him an address and a commemoration volume, to which many distinguished chemists from Europe sent their contributions. A similar commemoration volume was published on behalf of the enlightened citizens of Calcutta and the public of Bengal, containing contributions on a variety of subjects in English, Bengali and Sanskrit from many eminent Indian and foreign scholars. A public reception was also organized at the Town Hall in Calcutta presided over by the poet Rabindranath Tagore. The memorable words of Rabindranath, beautifully depicting the character and services of Prafulla Chandra, written on this occasion, may be quoted below in English translation.

"It is stated in the Upanishads that One said 'I shall be Many'. The beginning of creation is a move towards self-immolation. Acharya Prafulla Chandra has become many in his students and has made his heart alive in the hearts of many. And that could not have been at all possible had he not unreservedly made a gift of himself. The power of creation having its inception in self-sacrifice is a divine power. The



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glory of this power in Acharya will never be worn out by decrepitude. It will extend further in time through the ever-growing intelligence of youthful hearts; by steady perserverance they will win new treasures of knowledge".

May the words of the poet come out true to the glory of Prafulla Chandra and his beloved India!

The Corporation of the City of Calcutta also honoured him by presenting an address on the same occasion.

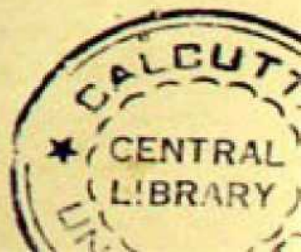
RETIREMENT AND DEATH

In 1936, at the age of 75, he retired from the university service as Palit Professor of Chemistry but continued as an Emeritus Professor. In 1941, the University of Calcutta and the general public celebrated his 80th birth-day by organizing a reception at the Senate Hall, when he received a number of congratulatory addresses from many scientific, industrial and public organizations, besides the one from the Calcutta University.

On June 16, 1944, at the age of eighty-three Prafulla Chandra died in his abode at the University College of Science, Calcutta, the scene of his activity for over a quarter of a century of his life.

"It is said that there are things in this world which are not meant to perish;—works which survive the workmen and multiply blessings when they are gone. Nothing human ever perishes: nothing at least, which proceeds from the higher and characteristic part of a man's nature; nothing which comes of his mind and conscience.... Thoughts, truths and emotions, once given to the world, are never past; they exist as truly and perform their duty as actively, a thousand years after their origin, as on their day of birth.' This is from Martineau's, *Endeavours after the Christian Life* (p. 242), one of his favourite books.

Acharya Prafulla Chandra's thoughts, words and deeds can never perish; they will continue to inspire generation after generation of his countrymen, particularly the students, to a deeper sense of duty and a nobler ideal of service. May this occasion of his birth-centenary serve as a reminder of this lesson to us.



II

PRAFULLA CHANDRA

AS A TEACHER AND AN EDUCATIONIST

I. TEACHER

Method of Teaching

Acharya Rây was a life-long teacher. Whatever else he might have been, first and foremost he was a teacher. It was not merely his profession, it was his passion as well. At first in the Presidency College, Calcutta, for more than twenty-seven years from July 1889 and then at the University College of Science as Palit Professor of Chemistry, years of his long life were devoted to the work of teaching.

He was well-equipped for teaching in the class. He had learnt the art of successful experimentation from his early years. It was the experimental side of the science which drew him to chemistry. As an arts student in the Metropolitan Institution he attended lectures on chemistry in the First Arts course and on both chemistry and physics in the Bachelor of Arts course at the Presidency College as an external student, and it was Pedler's experiments in the class which attracted young Rây to chemistry; he was struck by the high order of Pedler's "manipulative skill". Not content with seeing experiments in the class, he set up a miniature laboratory in the lodgings of a class-fellow and repeated experiments, one of which had disastrous consequences, though he was physically unhurt. He had realized its importance, and wrote: "Work, by which I mean laboratory work, had been the main sustenance of my life and I was simply hungering for it".¹ "To be a successful teacher, especially of junior students, who are first commencing a course in elementary chemistry, it is essential that he should have a neat hand in conducting experiments and that these should be so arranged as to make the lectures not only interesting but also easily intelligible. . . . It should be *sine qua non* for a lecturer in chemistry that he should have gone through a probationary stage as a class-assistant. It is a recognized custom

¹ *Life and Experiences of a Bengali Chemist*, 1932, pp. 82-83.



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with would-be attorneys and legal practitioners that after securing the necessary academic qualifications, they should be apprenticed as 'devils' to a firm or to a professional veteran for a term of years.... A master or doctor of science who receives his degree on the basis of a thesis may cut a sorry figure when suddenly called upon to lecture to junior pupils. He seldom acquires the manipulative skill of filling an eudiometer with mercury and displacing the latter with, say, two volumes of hydrogen and one volume of oxygen, preliminary to exploding the mixture. He is shy and nervous in regard to such experiments and he often avoids the difficulty by omitting them altogether or contents himself with exhibiting the apparatus on the lecture-table or, in the absence of the latter, drawing diagrams on the black-board."

The passage is quoted from his *Life and Experiences* at full length because it is a clear picture of the conditions that existed in those days. Prafulla Chandra was fully alive to the situation and he took special care to see that the experiments roused the interest of the young learners. He found a competent assistant in Chandrabhusan Bhaduri who had been trained by no less a person than Pedler himself. The experimental side of the young teacher's class-work went on very well. He had worn off any nervousness in the matter, which he might have had at first, by repeated experiments and, as for any false idea of prestige which a young lecturer might feel in setting up experiments himself—a business which might as well be left to assistants—Rây had none of it.

Apart from experiments, he enjoyed lecturing to the class. His heart yearned for the young aspirants to learning and he did his best to mould them in their thoughts.¹ He did not trust himself to mere extempore delivery—he would write the substance of his lectures beforehand—and it was "with relish and zest" that he began his work everyday. After he had joined the Presidency College, Pedler went home on three months' leave and all the important work of the department devolved on him. The heavy work that he then had to put in—sometimes he had to lecture to three classes in succession—ultimately proved a blessing in disguise as it made him a successful teacher. To quote him again: "Work itself was my delight, and I experienced almost a romantic sensation; I did not break down, nor did my interest flag."

Another factor which worked for his success in teaching was his practice of interspersing his lectures with inspiring anecdotes from the biographies of scientific discoverers—their struggles and ultimate victory. He tried to make a bridge between "the makers of modern chemistry" and his pupils by giving them an historical insight into the subject, weaving in his lectures the contributions of Priestley, Lavoisier, Scheele, Dalton,

¹ "I made it a point to lecture mainly to the junior classes. Boys coming fresh from High Schools are very teachable as they represent so much clay in the potter's hand to be moulded into the desirable shape."—*Life and Experiences of a Bengali Chemist*, p. 304.



at a time in the year when in many affiliated colleges the prescribed course was being considerably covered and in some the revision work was being taken in hand. He did not care. He knew that his method would succeed in laying a strong foundation on which to build. In his younger days he had developed a habit of reading biographies and it now produced tangible results in his class teaching.

His reading of Shakespeare¹ in particular and literature in general also helped to make his lectures lively. The apt citations came thick and fast as the occasion demanded and this literary flair, reminiscent of his studies, flavoured even his writings and speeches. He retained his interest in Shakespeare all through his life and it culminated in a series of articles entitled "Shakespearean puzzle" which he contributed to the *Calcutta Review* in the evening of his life—but that is another story. Quotations from Macbeth and Hamlet brought out with relief what he wanted to say and enlivened his class lectures.

And not in Shakespeare, or for that matter, English romantic poets alone, he was equally well read in Sanskrit literature, and even when he was a professor did he keep his interest in the subject. He gloated over Johnson's Dictionary as a boy and the knowledge of Latin which he had picked up at that age he utilized in his lectures going to the root of a word to express its meaning.

This leads us to another aspect of his teaching or rather his activities as a teacher. Time and again he had declared in his writings that he had mistaken his vocation, that his real interest lay in history and biography,² more than in any other subject. But his fairly wide readings in poetry, biography and history all came to his help in the course of his lectures on chemistry. He had been practising correlation in his method of teaching long before it was preached and paraded on the pedagogic platform in this country. And the result paid a good dividend.

It should also be taken into account how he made an appeal to the young learner through his informal manners, his approach to the student as a human being, an individual for whom he cared. When he was at Albert School he had unconsciously felt what personal contact with an

¹ "My acquaintance with Shakespeare ripened into close friendship and my appetite for the dramas, especially the tragedies, of the immortal bard, grew by what it fed upon even during my boyhood".—*Life and Experiences of a Bengali Chemist*, p. 28.

² "History and biography have even now a fascination for me. I read *Chambers' Biography* right through several times. The lives of Newton, Galileo—although at that time I did not understand or realize the value of their contributions—interested me much. Sir William Jones, John Leyden and their linguistic attainments deeply impressed me as also the life of Franklin. The answer of Jones' mother to his interrogations "Read and you will know" also was not lost upon me. Benjamin Franklin has been my special favourite ever since my boyhood and in 1905, while on my second visit to England, I procured a copy of *Autobiography* which I have read and re-read any number of times."—*Life and Experience of a Bengali Chemist*, pp. 29-30. A detailed account of his readings in English literature will be found on pp. 33 & 34 of the book.



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ideal teacher implied. In his own case, when in his turn he became a teacher, it was this personal contact which he sought to establish between himself and his students. When they were in distress, his purse was open to them. Hemendra Kumar Sen and Nilratan Dhar, to name two specific cases only, had received such help; there must have been numerous other instances. But more than money, he would give them his company, sometimes calling on them at their hostel, sometimes making them his companions in his evening walks. A student was his house-keeper in his bachelor establishment; another was his secretary and kept his accounts. In one of the entries in his diary, quoted in his autobiography, we come across a brief remark under April 4, 1923: "Read in the *Annual Report* (1922) on the Progress of Chemistry discussion on Ghosh's Law with almost parental interest." There is no doubt that this personal interest added to the quality of his teaching and made him so dear to his pupils. He would go so far as to extend this interest to the pupils of his pupils—whom he would affectionately call his 'chemical grandchildren'.

Thus, successful experimentation, careful preparation of his lectures, interspersing his lectures with stimulating anecdotes from the lives of great men who struggled hard in life and overcame obstacles, citations from his wide literary, historical and biographical readings, his informal manners and close personal association with students, all combined to invest him with the noble qualities which are associated with the name of a teacher, a name which still evokes respect in society and implies a status not inferior to any other in the various walks of life open to us at the present day. Prafulla Chandra was a living embodiment of such qualities and that is why the epithet Acharya suited him so well.

II. EDUCATIONIST

(a) Mother Tongue as Medium of Instruction

It follows as a matter of course that one who had been a successful teacher for an unbroken spell of many years and one with a scientist's outlook should have pronounced views on education. Prafulla Chandra had indeed strong views on matters connected with education and he gave vent to them whenever the issues would be raised—delivering special lectures, presiding over teachers' associations or addressing university convocations. The topics embraced a variety of subjects—literary education, medium of instruction, value of university degrees, function of a university, etc. It will be good for teachers and educationists of this generation to examine some of these views.

Himself an earnest student of literature, with a special predilection for English romantic poetry and Shakespeare, he condemned the preponderance of emphasis on literature in the teaching scheme of the universities.

Literature still occupied a large portion of the syllabus in our secondary education. This, Acharya Rây felt, was following a pernicious system which more than anything else stood in the way of real acquisition of knowledge. General knowledge and common sense are more necessary in the economic fight than high proficiency in any particular language. Students for the M.A. degree in English, he said, were fed on "Pemmicanized and tabloid form of knowledge" (*Life and Experiences*, p. 292). The English medium, he felt, was the most ridiculous item that could be imagined. In his presidential address at the All-Bengal College and University Teachers' Conference in 1926, he reverts to these two: "If half the teachable period of life is spent in acquiring a language, when shall we learn facts? I do not for a moment suggest that any one's education can now-a-days be complete without the means of reading and understanding one or two foreign languages. But that must be with specialists. The everyday knowledge of the facts of life and science could be easily imparted through the vernacular, and even for a specialist often no more than the working knowledge of a foreign tongue is necessary. In Germany it is found that educated people could read and write at least two other languages beside their own, yet they find their mother tongue the most suitable medium." He exclaimed: "There is a sort of slavishness in the choice of the English language as our medium, and a regrettable desire to appear smart in it. The success is cheap and its influence, therefore, hardly of any real consequence." He went further and asserted that making a foreign language our vehicle of instruction was the principal reason for our 'intellectual sterility.' Naturally, he thought it surprising that even today some of our well-known educationists continued to regard the relegation of the English language to an inferior position as fraught with disastrous consequences.

Did he discourage the study of English? Not at all. His own love of English literature in which he was fairly well read would forbid that. "The study of English or other important foreign languages is by no means discouraged: they open up newer vistas of thought and ideal" (p. 297). But at what stage should the young learner take up such a study? With evident relish he quotes the opinion of an educational authority on bilingualism in Bengal. "I believe that the reason why so much time is wasted on foreign-language study in India is that the children begin to study a foreign language much too early. There is a common idea that the younger the child, the better he learns the foreign language. This may be true under the age of eight, a very young child may unconsciously pick up a foreign language better than an older person can acquire it by study. But there is a great danger that such bilingualism in early childhood may be detrimental to the mother tongue. . . . The best way to begin a foreign language is about twelve to fourteen, for by that time the child has mastered his mother tongue, knows the principles of grammar, and has the mental development necessary for intelligent study. Moreover, by the time the children reach the



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age of fourteen, we know which of them need the foreign language and are capable of assimilating it."¹

Things may have changed, just a little, by now, but there is in view a retrograde step seeking to re-establish English in all its glory and prestige in the primary classes beginning with class III onwards, a step against which Acharya Rây had so emphatically spoken and written.

(b) Text-Books and Syllabus

He was also against the use of particular text-books in the class. When any of his students would ask his advice as to what particular text-book should be read, he would at once exclaim: "Make a bonfire of it, if you have already invested your money in any, but simply follow my lectures." It is evident that he clung strongly to the view that the corner-stone of education was the teacher, and not the text-book. In his own student days he was himself seldom satisfied with the prescribed books. They served him only as reference books and he took good care to hunt up the original sources. If he had made some mark in later life he felt it was because he had not confined himself to text-books even at the expense of foregoing high places in university examinations. As a teacher also the finishing of a considerable portion of the prescribed course had no meaning for him. He had an aversion to the policy of following a clear-cut and limited syllabus, which, according to him, was likely to cramp the mind of students and cripple their urge for knowledge. In this connexion one is reminded of an interesting incident. At one time when H. R. James was the Principal of the Presidency College, the I.Sc. and B.Sc. results in chemistry of the college for a few successive years suffered somewhat by comparison with those of some other colleges in the city. On Principal James' enquiring of Dr. Rây about its probable cause, Dr. Rây replied "because we teach chemistry and not the syllabus of the Calcutta University." He condemned students and teachers alike who became slaves to the routine method and followed the text-books closely. The result was that our graduates betrayed lamentable ignorance of many essential subjects which an English lad of 12 or 14 learnt by the fire-side. In his presidential address delivered before the All-Bengal College and University Teachers' Conference in August 1926, he referred to this defect in our educational system in words which still apply to our present conditions: "If you complain to my graduate friend about his lamentable deficiency in intellectual equipments, he simply retorts by saying—'But, Sir, it was not in any of our prescribed text-books.' The knowledge that counts after all can seldom be gathered from the few prescribed text-books. It is for the teacher to create a love of study in his pupil. Even text-books have ceased to be regularly gone through—various mi-

¹ *Life and Experiences of a Bengali Chemist*, pp. 297-298.



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chievous substitutes find favour now-a-days in the shape of 'aids,' 'digests,' 'compendiums' and shall I also add 'tips'. Above all, the pernicious custom of dictating notes to be committed to memory has been allowed to grow up. It is a custom which curseth him that gives and him that takes".

The curse is now fairly well spread and Acharya Rây would have been shocked to find that even in the top classes students had dispensed with their text-books, and there was almost wholesale absence of any books. They had accepted Acharya Rây's advice, but only half of it. What could be expected as a natural consequence? In 1926, as president of the ABCUTA conference, reference to which has been made already, he declared that the present educational system of Bengal was a huge economic waste, in that a very small percentage of students pass on to the M.A. examination after their matriculation. If ten per cent only of the students after matriculation proceeded further with their studies then according to the figures of the times an annual saving of more than 29 lakhs, representing the ninety per cent who would drop midway, would result, and the amount of Rs. 360/- thus saved per student, who had not gone up for further studies, could be utilized as capital in developing trade, business or agriculture.

The whole idea of university education, according to Dr. Rây, was wrongly conceived in India. In his convocation address to the University of Mysore in 1926, he held that all routine details should be taken away from the university system. The function of a university is very far removed from that of a secondary school. Even in the post-graduate stage there are people who would insist on regular college exercises. In this connexion he pleaded for more initiative from the students themselves. "I do not for a moment suggest that in the universities under the cloak of freedom of choice of study any indolence should flourish. The habit of industry in addition to intellectual capacity should form the primary condition of continuance in the university. All that is implied is that the numerous compulsory class lectures and exercises that form today the basis of education in the universities should be abolished if the intellectual capacity of university students is to develop." The tutorial system at its best would not fare well compared with a system where students are given some questions and the names of some books they have to read and digest, in order to develop their answers by their own thinking for subsequent discussion with their colleagues and professors in the college seminar.

All these must be based on a sound system of secondary education. Again, he pointed to the huge waste of time involved in the system. "Six or seven years of the most precious period of a boy's career are simply wasted in learning or picking up the intricacies of a foreign tongue through the medium of which he is made to acquire knowledge. Such



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a monstrous and perverse arrangement does not, I believe, obtain in any other country under the sun. Imagine for a moment what would happen if an English lad were compelled first of all to learn Persian or Chinese or say German or Russian and then had to read through the medium of such a tongue. . . . Here in India we have adopted the most unnatural system and have to pay a heavy penalty for it¹."

He was in favour of rigorous elimination in the matter of admission to the university. In the science classes of the University of Calcutta, owing to the exigencies of space and apparatus, restriction had to be resorted to, but in the case of the Arts Department, for the sake of revenue, the gates were thrown wide open. This, the Acharya deplored, was a serious drawback in the university system.

The motto of the university should be advancement of learning; it must not be merely a centre of information. It should open its gates to any one who has given good evidence of originality or keenness of intellect. This was why he described J. N. Rakshit, a plucked B.Sc., as a "find," when his skill and abilities were brought to the notice of Dr. Rây. The professor gave him proper scope and Rakshit grew to be an original investigator of no mean repute, contributing more than 40 papers; he was quoted as an authority in certain lines. After all, the university is not to be treated as an asylum for giving hall-marks or degrees. There have been many great men who have not crossed the threshold of any university. Girish Chandra Ghose, Keshab Chandra Sen, Rabindranath Tagore, Sarat Chandra Chatterji—all his contemporaries—were innocent of university education. Yet does any one dare call in question their cultural contribution? Acharya Rây pointed to such examples in Bengal, he referred to similar well-known cases in Europe and America—told his readers how 'From log cabin to the White House' was a common thing in America, how Bernard Shaw could not secure the benefit of a college education, how Michael Faraday rose from a book-binder's assistant, and how Herbert Spencer pronounced his fourteen months at Magdalen College as the most idle and unprofitable period of his life.

The function of the university shall be in future not to confer degrees by holding examinations for the purpose, but to advance the cause of learning. The teachers, relieved of the strain of delivering lectures, are to carry out original investigations or researches for which the students will be apprenticed to them. Whenever the teachers have something new to impart they will lecture and give discourses and keep the spirit of enquiry for ever alive and growing. As H. G. Wells had suggested, "the future universities will offer no general education at all, no graduation in arts or science or wisdom. The only students who will come to them will be young people who are specially attracted and who want to work in close relation as assistants, secretaries, special pupils, collateral

¹ *Life and Experiences of a Bengali Chemist*, pp. 289-290



investigators with the devoted and distinguished men whose results are teaching all the world." Dr. Rāy delighted in quoting passages such as this. The hall-mark does not matter, the degrees are not to be taken too seriously, but the advancement of knowledge, the keenness of the intellect, the active spirit of original research will mark the progress of the individual or mankind as a whole.

One result of the 'personal contact' between the university teachers and students will inevitably lead to the students being admitted to the executive organization of the university. Acharya Rāy had in view an intellectual democracy, and he noticed with regret that in the executive work of an academic system, the student element was entirely absent. Nothing teaches a man more than responsibility and the feeling that he is of the system.

The main defects of the universities that Acharya Rāy pointed out again and again in his addresses—were the foreign medium of study, the absence of elimination, the system of compulsory lectures, and the non-participation of students in the organization. Some of these are still live issues and even if we cannot agree with his findings, the scientific mind that analysed our defects certainly should compel our attention to the issues raised and the conclusion reached. There are certain other issues raised by him as an educationist which cannot be passed by in silence.

He condemned in no uncertain terms the craze for foreign degrees. "The glamour of a foreign, specially British degree or qualification, has been the fruitful cause of a grave wastage not only of money but also of time and energy. . . . It has been calculated that about a crore of rupees is thus annually drained out of India, for which the country gets a very poor and inadequate return". In these days the amount has to be multiplied many times over, and we have to admit with regret that though we have attained independence, the 'culture conquest' is still there. Acharya Rāy pointed to the fact that the most successful teachers of English in the University of Calcutta were not trained in Oxford or Cambridge, but in Calcutta itself. He pointed out also that Professor C. V. Raman who obtained the Nobel Prize had been working in an Indian laboratory and his training was purely Indian. He was glad at heart when he came to know that a band of youngmen no doubt inspired by his example went to Europe but not on a degree-hunting expedition—brilliant men like Satyendra Nath Bose and Meghnad Saha—and returned to India full of honours for their original investigations, but did not lower the prestige of their Alma Mater by enrolling themselves as students for foreign degrees.

It was an oft-recurring topic with Acharya Rāy that our young graduates were not taking their place in the world of business, trade and commerce and that young men without opportunities of schooling fared



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better. How could that be? Was there anything wrong in the scheme of their education? Could not their syllabus or plan of education be suitably adjusted to equip them for life's battle? But the discussion led him to see that the condition of things was the same in England and America. In his autobiography he cites articles where with reference to England the decided opinion is expressed that "a university degree is rather a disqualification and a handicap in the way of success in life,² as far as trade and business are concerned" (p. 271). Even the average public school boys did not make efficient businessmen in England. They were found to be more fond of sport than work and would be watching the clock to see when they could get away for golf or tennis. One American writer had cautioned that the process of education should be such as not to impair the health of the young student in "struggles for useless honours, that the feelings be not suffered to grow over-sensitive in useless contemplation."

Acharya Rây's idea of a university was something different from our popular conception. The business of a university is not to cram the young student's brain and memory with names and information, nor to make them experts in their life's career, but "to teach the students to weigh the significance of facts from the angle of philosophy. A mind receptive to novelty, capable of wisdom inclined to moderation—these are the excellences at which it aims".¹ Laski, Edison, Mussolini—all thought more or less on the same lines on the function of a university and the reforms needed to be carried out. He confessed in his convocation address to Benaras Hindu University in 1933, that he was not out to preach a jeremiad against university education as such. All that he wanted was that its ideal might shine clear, and that there might be no impediment due to poverty, no encroachment against the independence of the university. In this context, a paragraph from his convocation address to the Jamia Milia Islamia, Aligarh, delivered in 1923, will repay perusal:

"Freedom first, freedom second, freedom always—a noble sentiment nobly expressed by one of the makers of modern India, Sir Asutosh Mookerjee—should ever be the watchword of a university. And this freedom we need not mean in a restricted sense as implying merely administrative autonomy in the management of a university—it should be given the most generous interpretation. It should stand pre-eminently for the freedom of the mind—the liberty of thought, the transmission of reason, the emancipation of the intellect—the most glorious achievement and the most difficult; throughout the annals of human civilization, authorities, precedents, dogmas—all must stand the test, the searchlight of the intellect, cold and unimpassioned; and if found wanting, if found defective, if found absurd, they must go and be relegated to the lumber-

¹ *Life and Experiences of a Bengali Chemist*, p. 300, quoted from Laski.



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heap. Let there be light—is the cry of the human mind that has gone up for ages, though so often repressed and stifled; and that cry must be satisfied if there is to be light. It is in this instinct for light, for truth, for reality that man shows himself most God-like."

The fight against authority and dogma which a university should eternally wage had a special appeal for Dr. Rây, a life-long student of science. After all, what is the greatest contribution of science to the cause of civilization? It has been the stand it has taken as in revolt against authority, in its pursuit of truth, in its appeal to reason. Dr. Rây could not very well call himself a votary of science and at the same time, bind himself to unreason, to authority and to dogma.

He was for democratizing education even the poorest of the poor shall have access to the university. He ridiculed the prevalent idea that to have a university you must have huge sums of money running into lakhs and crores, to be translated into a monstrous pile of palatial buildings and a few endowed chairs bearing princely salaries, and an aristocratic vice-chancellor enjoying an honorarium of Rs. 3000-4000/- a month to preside over this imposing structure; forgetting that it is the man who counts and the intellectual atmosphere which constitutes a university, and not mere bricks and mortar. It was well for the alien government to direct that grants-in-aid must be withheld or reduced from institutions which would realize no fees from students or would demand nominal fees only. But the Goddess Saraswati (Goddess of Learning) and poverty are associated in our mind by tradition. Acharya Rây in this convocation address, while emphasizing that strict *Bramhacharyya* or ascetic discipline must lay the foundations of a virile and self-controlled manhood, said, "Even now, if I am informed aright, in Cairo some three to four thousand pupils take their lessons from their teachers squatted on the floor covered with mats. This ideal we must uphold; Oxford and Cambridge with their costly appurtenances will not do for us; in the rage for forms and furniture and machinery, we must not lose the substance."

He had a vision of a true university. He thought of the mighty service which university and well-guided education could offer to the nation in the course of a single generation, and with increased understanding of the power of knowledge he hoped it would be possible to combat and banish disease, enliven all homes and raise the human species to a much nobler height of intelligence. If the dream materialized, the university would play a great part in the transformation. It would be a noble work of reconstruction, calling for the proper service of science which would be utilized to serve men, not to destroy them.

In the present days when universities are multiplying and are likely to multiply, it is good for us to remember the Acharya's condemnation of the project of raising stereotyped universities without regard to 'regional



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considerations' as waste of economic power. That was about 35 years ago, when he was delivering his convocation address at Mysore. But he would view with sympathy regional universities—where regional needs would be duly considered and then the plan formed. Such a university will be a living, consulting body on matters of technical importance.

Some of the educational ideas of Acharya Rây have now a historical importance. The years 1944 to 1961 have been eventful. Some change was already in the offing, the schools have been detached from the university, for instance, and there may have been similar deviations from the practice which obtained then. The medium of the mother tongue has been adopted officially. The three-year degree course is another change of considerable importance. But there is no denying that Acharya Rây's observations have in them a compelling quality for us to attend to, before we move onward and step into the future. His robust idealism should guide us when we falter in the path of life.

III

PRAFULLA CHANDRA :

CHEMICAL RESEARCH IN INDIA.

EARLY HISTORY OF ENGLISH EDUCATION

In order to understand the uphill work that Acharya Rây did to develop scientific research in India, it is necessary to know the state of English education at the time when he began his career. The first educational institution to be founded was the Calcutta Madrasa in 1780. In 1793, J. Duncan, the Resident at Benaras, founded the Benaras Sanskrit College. As lads of 15 to 18 were being sent to India in the service of the East India Company, it was felt that arrangement should be made to educate them further if they were to prove to be good administrators. Hence a college was established, the College of Fort William, at Calcutta in 1800.

The college did not directly benefit the people but the association of some eminent men with this college had repercussion on the cultural uplift of the people. In 1813, when the Charter of the East India Company came to be renewed, it was resolved that "it shall be lawful for the Governor General in Council to direct that out of any surplus which may remain of the rents, revenues and profits, a sum of not less than one lakh of rupees in each year shall be set apart and applied to the revival and improvement of literature and the encouragement of the learned natives of India, and for the introduction and promotion of knowledge of the science among the inhabitants of the British territories of India." In 1821, it was decided to establish a Hindu Sanskrit College in Calcutta on the model of the Benaras college. In 1823, Raja Rammohun Roy wrote a letter to Lord Amherst in which he stated :

"As the improvement of the native population is the object of the Government, it will consequently promote a more liberal and enlightened system of instruction, embracing mathematics, natural philosophy, chemistry and anatomy with other useful sciences, which may be accomplished with the sum proposed, by employing a few gentlemen of talents and learning educated in Europe, and providing a college furnished with necessary books, instruments and other apparatus."



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From Rammohun Roy we pass on to the famous despatch of Macaulay in 1835, which was in no small measure responsible for the intellectual renaissance of India. Lord William Bentinck had endorsed Macaulay's views and the Board in England decided that "schools for the teaching of English literature and science through the medium of English language should be established in the Presidencies of Fort William and Agra, as funds became available and as school masters can be procured." This put an end to the controversy that was raging regarding the medium of instruction.

Lord Bentinck had appointed in 1833 a committee to report upon the existing state of native medical knowledge. This committee reported that "a new institution be established in which medical science be taught on European principles through the medium of English. A knowledge of English language we consider as the *sine qua non*, because that language contains within itself the circle of all the sciences." The college was opened in 1835, the year of Macaulay's famous minute.

In 1840, during Lord Auckland's regime an extra grant of half-a-lakh of rupees was sanctioned over the annual grant of about rupees five lakhs. Of this sum, three-and-half lakhs were appropriated for the existing colleges and schools and to other charges of the department; and it was in contemplation to devote the remainder to the establishment of a chair of civil engineering and another of law or natural philosophy in the Hindu College. By these means the Government was able to support six colleges, 18 English schools and vernacular schools in Bengal, Bihar, Orissa and Assam. In 1844, Lord Hardinge by a resolution threw open the public service to young men from various educational institutions. This gave a great stimulus to the cause of English education and was welcomed by the Indians. In 1845, the proposal to found the University of Calcutta was mooted. The ground for the proposal was as follows :

"The present advanced state of education in the Bengal Presidency renders it not only expedient and advisable, but a matter of strict justice and necessity, to confer upon them some mark of distinction, by which they may be recognized as persons of liberal education and enlightened minds capable, from the literary and scientific training they have undergone, of entering into the active duties of life; of commencing the practical pursuit of learned professions, including in this description the business of instructing the rising generation; of holding the higher offices under the Government open to Natives after due official qualification; or of taking the rank in society accorded in Europe to all members and graduates of the universities."

Lord Dalhousie agreed to the proposal of establishing a new general college called the Presidency College which would not have the exclusive character of the Hindu College which was meant only for Hindu boys. It was decided to have a new building and admissions were to be



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restricted to boys who had passed the Junior Examination. The Sanskrit College would cater to the teaching of higher branches of Hindu learning while the Madrasa would do the same for Mahommedans so far as their classical learning was concerned, but in the Presidency College emphasis would be placed on modern subjects. Thus the Hindu College, with the consent of the donors, was merged into the new Presidency College.

In 1853, on the occasion of the renewal of Company's Charter for the fourth time, the great educational despatch of July, 1854 was sent. This Charter of Indian Education, which in the words of Lord Dalhousie "contained a scheme of education for all India, far wider and more comprehensive than the local or supreme Government could ever have ventured to suggest," was confirmed in Lord Stanley's despatch of 1859 after the Crown assumed responsibility for the Government of India. The two together formed the Educational Code of British India till the attainment of independence. The Calcutta University was founded in 1857. It has been stated that its object was to produce teachers, junior Government servants and gentlemen of good social standing. It has been seen that increasing amounts were being spent on education, consequently there was need to have a large number of teachers. The administration at the lower and intermediate levels needed educated Indians as Europeans could not be engaged wholesale owing to the high cost involved. Merchant houses also needed clerks to carry on their day to day work. Therefore, the primary object of establishing the university was to produce graduates to fill up these posts. Although by Queen Victoria's proclamation, every post had been thrown open to the Indians, it was only in theory. The superior branch of the Civil Service was entirely manned by Britishers. The higher educational posts were also their preserve. After a great deal of agitation, a modification was made whereby certain selected Indians were taken as Statutory Civilians but they were entitled to two-thirds of the pay of the I.C.S. Law was a lucrative profession as here success depended on one's ability rather than on the colour of his skin. Moreover, the Bengalis as a race are particularly suited for the legal profession, being of an analytical bent of mind. There was a saying in New Delhi that Bengal was the province where they grew jute and Law Members of the Viceroy's Council. Hence at the time Acharya Rāy was born the only plum jobs were in legal profession. The higher ranks of the teaching profession were almost barred to the Indians.

ACHARYA RAY AS A STUDENT OF SCIENCE

From 1800 onwards, the need for introducing to India the science of the West had been talked about many times, but most elementary provision had not been made for the purpose. When Acharya Rāy joined the Metropolitan Institution, he had to attend the Presidency College for chemistry lectures. In 1876, Dr. Mahendra Lal Sircar had founded the Indian Association for the Cultivation of Science, where lectures in chemistry, botany and physics were delivered but, as it was not affiliated



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to the Calcutta University, it had not gained any very great popularity, particularly among students preparing for a degree. Acharya Rây has given a good account of his difficulties as a student and he decided to proceed to the U.K. for completing his studies. He felt that if India was to hold her own amongst the nations of the world, she must develop her sciences. Although of a literary bent of mind, he decided to study chemistry so that on return he could devote himself to the spread of chemical education in the country. He took his B.Sc. (Edin.) in 1885 and D.Sc. in 1888. He obtained the Hope Prize Scholarship and was elected as Vice-President of the Edinburgh Chemical Society where he also delivered a lecture on the carbo-ketonic ethers of Frankland and Duppa on March 14, 1888. He had James Walker as a fellow student with whom he regularly corresponded throughout life. Another fellow student was Hugh Marshall who later on became a professor at Dundee. Marshall will be remembered for his work on the persulphates. Rây had given him a sample of his own compound for analysis which he had prepared for his doctorate. Marshall tried the electrochemical method as elaborated by Claisen. Copper was deposited in the usual manner, but there were also beautiful deposits of octahedral crystals which Marshall proved to be cobalt alum. One of the products of the reaction was persulphuric acid. Marshall became famous in one bound and left many of his seniors a long way behind.

His Edinburgh days were happy ones. Dr. Rây made the acquaintance of many Indians, notably P. N. Dutt and others, who made their mark later on. He also was very popular with his Scottish fellow students. Crum Brown, his teacher, formed a very high opinion of him. Recently, from his collection of miscellaneous papers a testimonial given to him by Crum Brown on the eve of his return to India has been found. As was the custom in those days, it was a hand-written one; the ink shows no signs of fading although written 75 years ago. Crum Brown praised his chemical knowledge and skill in performing experiments. Crum Brown also gave him a letter of introduction to Lord Playfair, who was Crum Brown's predecessor as professor in Edinburgh. Sir Wm. Muir, ex-Governor of U.P., and at that time the Principal of Edinburgh University, gave Rây a letter of introduction to Sir Charles Barnard, a member of the India Council. Lord Playfair also wrote to Lord Cross, the Secretary of State for India. In those days and even many years later, the gates of the higher posts in the Education Department could only be opened by the Secretary of State and were all but closed to the Indians. There were one or two exceptions, but these were made owing to very special reasons. Barnard tried his level best to get him in the superior cadre, but two months' wait in London did not bring any result. Barnard even offered him financial assistance so that he could stay in London for a little while longer and see if the closed gate could be forced open. Rây decided, however, to return home although he knew very well that it would be a terrible uphill task to do any really valuable research work



from a subordinate position. We all know that money had no attraction for him yet he felt a great disappointment in not being able to get into the superior service. He saw that Indians were still regarded as inferior beings despite Queen Victoria's famous proclamation and that opportunities for doing research work would be denied to him because of the brunt of drudgery of junior class teaching to be borne by him and of the lack of proper facilities for research. Therefore, with a heavy heart he returned to Calcutta. Principal Tawney of the Presidency College was on leave in London at that time and before he left London Barnard had introduced him to Tawney who readily gave him a letter of introduction to Sir Alfred Croft, the Director of Public Instruction in Calcutta. He reached Calcutta in August 1888, after a stay abroad of six years.

Chemistry was gaining slow recognition as an important branch of study, but the Presidency College was still the only institution where some elementary facilities existed for its study. The private colleges were few in number and their resources did not permit opening of chemistry classes. The students from these colleges, as in his college days, were permitted to attend lectures at the Presidency College. The Indian Association for the Cultivation of Science came into existence in 1876 and made arrangement for lectures in chemistry which were open to the public. But the student community did not care to attend these classes. Mahendra Lal Sircar made a representation to the Government that the students from other colleges should not be allowed to attend the lectures at the Presidency College. He hoped the students would then attend the Association lectures. The Government would also have been compelled to adopt this course, as the classes in the Presidency College were getting unwieldy owing to the large number of external students. Pedler wrote to the Government that the time had come to make arrangements for practical work of the students. There was need now to appoint an additional member of the staff. It was at this psychological moment that Dr. Rāy appeared on the scene.

The history of admission of Indians to higher posts is a history of good intentions, pious wishes but of poor performance. Macaulay's famous minute was full of pious expressions of goodwill towards his "fellow subjects" but India Office was a different proposition; bureaucrats in charge of this switch-board of activity managed to put every suggestion into cold storage. Indians of approved merit and also of aristocratic "ciphers" were sometimes drafted into the Civil Service but the competitive examination was not for the Indians. In the Education Service similar restrictions existed. J. C. Bose, who returned to India in 1885, after a brilliant academic career at Cambridge and London, entered the higher service after a great deal of fight but had to be content with two-thirds of the pay as in the case of Civil Service. As a rule, Indians were taken in the subordinate branch of the service. Owing to the agitation in India and also in England by friends of India, Lord Dufferin appointed a Public Service Commission



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to consider ways and means of finding extended employment for the Indians. The recommendation of this commission was to have two branches of the service—one, the Imperial and the other, Provincial. The former was meant for Britishers and the emoluments were double those of the Provincial cadre which was to be for the Indians. After waiting for nearly a year, Rây was given an appointment on Rs. 250/- a month and was placed on the unclassified list. He felt very sore about the injustice and proceeded to Darjeeling to make a personal representation to Croft, but to no effect. It made him resolve to put Indian science on high level and show to the world the gross injustice that was done to Indians by a ruling race determined to preserve its supremacy. Later on, it was found from the files of the Education Department that the intention was to appoint him temporarily in the unclassified cadre and promote him to the Imperial Service as soon as a vacancy occurred. For some reason or other he remained where he was and started on his life's mission of putting Indian science on the world map.

THE PRESIDENCY COLLEGE CHEMICAL LABORATORY

The chemistry department of the Presidency College was in the one-storeyed building where the old Hare School was located. The space occupied by the department was totally inadequate even by the standard of those days. The laboratory facilities were extremely poor. Rây devoted himself heart and soul to qualify as a successful teacher. He had already gained some experience as a class assistant in Edinburgh where as Hope Prize scholar he had to arrange lecture experiments for the Professor. He found Chandrabhusan Bhaduri as Pedler's lecture assistant. Pedler was a good experimentalist and so was Bhaduri. The latter was very helpful to young Rây and was always willing to help him. Rây repeatedly rehearsed his class experiments and was soon considered to be a very good teacher. It may be stated here that generations of students have watched him perform a variety of experiments in the class and resolved to adopt this branch of science as their career. It is sad to mention that the present-day students see very few experiments in the class and the fall in the standard of teaching in the elementary classes is largely due to this reason. He also used to prepare his lectures very carefully, often writing the lecture out before delivery. He did not use the notes, but writing a theme out and rearranging the matter before delivery often resulted in the presentation being vastly improved. How many teachers today take even a fraction of the trouble he used to take! Sometimes he had to lecture to three classes in succession but even then he took meticulous care to prepare his lectures. At this time he neither had the leisure nor facilities to undertake any research work. Pedler went on leave in October 1889 and Rây was placed in charge of the entire department. This put new heart in him although this elevation was only for a few months.

Now he decided to start seriously the investigation of a problem. With



the facilities he had, the only problem he thought he could tackle was the question of adulteration of food-stuffs. Adulteration of *ghee* (clarified butter) and mustard oil was then rampant as it is now. No reliable data existed for these substances of Indian origin. He undertook to compile these under his supervision and then calculated the various constants. He also determined the physico-chemical constants of some pure and adulterated samples and this elaborate investigation occupied nearly three years. There were no research students and no proper laboratory facilities, but very heavy junior teaching work. He felt that pending improvement in laboratory facilities, he would write books on scientific subjects in Bengali as there were no books in that language. It science was to be popularized, then books should be written in a language which the masses could understand. He started to write a primer on chemistry but had to give up the effort, as difficulty arose about the nomenclature. Books on botany and zoology seemed to offer not much difficulty. A primer on zoology was published and received some measure of public support. He started a Nature Club which attracted some promising young men of his age who later on distinguished themselves in Calcutta. Nilratan Sircar, Prankrishna Acharya, Bepin Behari Sarkar, and Heramba Chandra Maitra were members of this club. During the summer vacation he caught some cobras and studied the mechanism of snakebite. It may be mentioned that Pedler was investigating the chemistry of cobra venom. Pedler found that the active principle was basic in nature and formed an insoluble platinichloride or aurichloride. It was even suggested that an injection of platinic chloride at the site of the bite might prove beneficial; antivenin had not been discovered then. Anything which promised some results was widely appreciated.

THE NEW LABORATORY

It has been mentioned that the chemical laboratory was over-congested and it was difficult to arrange for the practical work of the students. There was hardly any space for research work. As Pedler, the head of the department, was also interested in research his need for space had to be first catered for. Pedler was also keenly interested in the development of Rây as an investigator. Once Principal Tawney was invited to visit the chemical laboratory when practical work was going on in full swing. As there were no flues, the whole laboratory was full of obnoxious fumes. Tawney, who had weak lungs, could not stand the place for more than a couple of minutes and rushed out in a mad hurry. He informed the Director of Public Instruction that should the Health Officer ever visit the laboratory, he would surely prosecute the authorities for endangering the health of the students. Pedler also supported him and slowly the Bengal Government was made to realize the necessity of allowing a new laboratory to be built. In 1892, plans were discussed for the erection of a new building. A copy of the plan



of the Edinburgh University laboratories was with Rây and this served as a model for the new laboratory. It will be seen that before he left Edinburgh, he had armed himself against all the emergencies that might arise. He knew well what the Presidency College laboratory should be like. If a day should arrive when the authorities would sanction a new laboratory he would not be stumped. It must be remembered that at that time there was no firm with any experience of this kind of work in India. This would show that he had determined to be the instrument for developing chemical research in India.

The new building was occupied in 1894 and soon attracted visitors from different parts of India. It served as a model for other laboratories that were contemplated to be built in other parts of the country. Research work was started in right earnest now. Holland (the late Sir Thomas), a lecturer in the geology department, undertook to supply various minerals. The idea was to see if any of these minerals would furnish any of the missing elements in the Periodic Table. This work did not yield any worth-while result, but very valuable lessons were learnt in mineral analysis. The late Professor N. C. Nag was then a student of the Presidency College. No doubt he received his education in mineral analysis at this time. Professor Nag became an acknowledged authority in this subject and enjoyed great reputation at Agra where he went as a professor. Later on, he migrated to Benaras Hindu University where he also created a good school whose speciality was mineralogy and mineral analysis. He ended his career as the Assistant Director of the Bose Research Institute. Incidentally, he pioneered the production of borosilicate and optical glasses in India in the "Sigcol" glass factory, of which he was one of the founders.

The discovery of mercurous nitrite was a turning point in Rây's career. To quote him: "having recently had occasions to prepare mercurous nitrate in quantity by the action of dilute nitric acid on mercury, I was rather struck by the appearance of a yellow crystalline deposit. At first sight it was taken to be a basic salt, but the formation of such a salt in a strongly acid medium was contrary to ordinary experience. A preliminary test proved it to be at once a mercurous salt and a nitrite. The interesting salt promised thus amply to repay an investigation"—Rây, *J. Asiatic Soc.* 1896.

The *Nature* noticed this paper and wrote: "*The Journal of Asiatic Society* can scarcely be said to have a place in our chemical libraries; the current number, however, contains a paper by Dr. P. C. Rây of the Presidency College, Calcutta, on mercurous nitrite by the action of nitric acid (dilute) in the cold on mercury, yellow crystals are deposited, which upon examination, proved to be the mercurous nitrite." Thus it will be seen that within 2 to 5 years of building the new laboratory, a good piece of work was completed. Rây was, therefore, amply justified in his belief that given



the facilities, it was possible for India to take her place with the others. A good many investigations were completed on nitrites. Professor Armstrong remarked: "the way you have made yourself a master of the 'nitrites' is very interesting." Numerous pupils now began to flock to his laboratory. J. N. Sen (latterly Imperial Agricultural Chemist) was a research scholar at the time. P. Neogi joined sometime later on. P. C. Mitter took his Master's degree about this time. The Government had sanctioned a research scholar to assist Dr. Rây in the investigations. The custom was that the scholar would work for a while with Acharya Rây and then he would be allowed to conduct research independently. A watchful eye was only kept. This helped in the development of critical faculty in the scholar and he gained self-confidence in being able to carry on research work without spoon-feeding. It will be seen that a very sound principle was adopted. In most laboratories in Europe this kind of 'independence' did not usually exist.

In the library of the Presidency College he came across a copy of Berthelot's *L'Alchimistes Grecs* which stimulated his interest. He was in correspondence with the famous Frenchman and wrote to him that apparently he was not familiar with the advance in alchemy made in India in ancient times. As a result of some correspondence, it occurred to him to write a book on Hindu Chemistry as the contribution of India was totally unknown in Europe. A careful search for manuscripts of ancient books was undertaken. Pandit Navakanta Kavibhusan undertook journeys to different places of India in search of manuscripts. Texts were compared. Ultimately the first volume was published in 1902. It was acclaimed to be a monumental work. It received high praise from Berthelot who devoted 15 pages to its review in the *Journal des Savants* (Jan. 1903). *Nature*, *Knowledge*, and the *American Chemical Journal* also reviewed it favourably. The book had a good sale abroad, particularly in England. It served to focus attention of the scientific world to the past contribution of India towards the progress of chemistry. It raised new hopes in the minds of young India that with diligence and perseverance, they would also be able to enhance the world's total stock of knowledge—a great step forward for the people who had been told that theirs was only a back seat and they were not entitled to enter the superior educational service!

Extracts from the book have been published by different authors in different countries. Professor Alexander Batek (Bohemia 1904) wrote:

"I am publishing in my mother tongue in short lectures the history of natural sciences and I pray you to allow me to publish also a short extract of your excellent book—*A History of Hindu Chemistry*—in this collection."

Arrhenius in his *Chemistry in Modern Life* quotes from *Hindu Chemistry* and assigns to India the priority in the use of metallic, especi-



ally mercurial, drugs. Italian *Archivio di storia della Scienza* reviewed the book as follows :

"Interest in the history of science has been spreading today in all civilized countries, and although very often still it leads but to the production of works of small value,—the legion of dilettanti abounds everywhere and constitutes the noisiest gang—many others embody writings of noteworthy importance. And thus in all countries, besides the simple copyists and others inspired by stupid and senseless nationalism who believe that science has developed in only one nation and that their own, there are to be found chosen spirits who possess the necessary preparation and adequate intelligence to collect, write and judge, and who, if they prefer to occupy themselves with their own country on account of responsible sentiment and natural competency, do so with a large vision and an unprejudiced mind and deserve therefore to be enquired into and studied in their writings. In India, in so far as the history of chemistry is concerned, such a predominant position belongs to Sir P. C. Rây, to whom we owe quite a series of noteworthy work. * * * * But the capital work of Rây's that will cause his name to be remembered, is the magnificent history of Indian chemistry from its origins to the middle of sixteenth century." The second volume of *Hindu Chemistry* was published in 1908. The preparation of the first volume entailed a great deal of hard labour and his researches had in consequence suffered a little. Inorganic chemistry which had been regarded as a dead subject received new impetus through the discovery of the rare gases of the atmosphere and the discovery of radioactivity. The nature of emanation from radium had been established. He had to catch up with the advance that science had made, while he was busy digging into the past. Consequently, some time elapsed before the second volume of *Hindu Chemistry* was taken in hand. An unbroken series of papers on the nitrites were published meanwhile in the *Journal of Chemical Society*, London.

His work had now won recognition abroad. The Bengal Government founded some scholarships to encourage students to do research after their Master's degree. This has already been referred to. It helped to a certain extent research activities of his department. These students found ready employment in the new educational institutes that were being founded or in some of the technical departments of the Imperial Government as was the case with J. N. Sen. Atul Chandra Ganguli was one of the scholars who later obtained a post in Cuttack. Ganguli had robust health and an infinite capacity for hard work. Another young man who came under Rây's spell at this time was Atul Chandra Ghosh. He secured a post in the Dayal Singh College, Lahore. Thus he took the master's enthusiasm to the far off Punjab. One of Ghosh's pupils was S. S. Bhatnagar who often used to remind Acharya Rây that although he was not a direct pupil of Acharya Rây, he was his 'grand-pupil.'



ACHARYA PRAFULLA CHANDRA RÂY

Although a good many young men were making their mark in chemical research, the position of the Indians so far as higher services were concerned remained the same. The Indian National Congress had been agitating to improve the conditions of service of capable Indians. In fact, during the twelfth session of the Congress held in Calcutta in 1896, Ananda Mohan Bose moved the following resolution :

"That this Congress hereby records its protest against the scheme of reorganization (the creation of the Provincial Cadre) of the Educational Service, which has just received sanction of the Secretary of State, as being calculated to exclude natives of India". In course of his speech while moving this resolution, A. M. Bose said: "We know that the grand researches of an Indian professor in the field of invisible light, in the sublime and giddy heights of ethereal vibrations, have led to the discoveries which have filled the mind of Lord Kelvin, the highest authority which England has produced, literally with wonder and admiration. We have heard of the great and wonderful feat that another countryman of ours has achieved in the last great competition for the Indian Civil Service. We know of the discoveries which also in the present year of grace have rewarded the genius and the patient toils of another countryman of ours in the realm of chemical research. The present year then, when India has shown that she has not forgotten the traditions of her glorious past, when the Indian mind has awakened to the consciousness of the great destiny before it, and not only awakened to that consciousness, but has taken the first practical steps towards obtaining its recognition from the generous scholars of the West, surely is not the time or the season for ushering into existence a policy of this retrograde character. We shall not, so far as in us lies, permit without protest at any rate, the inauguration of such a policy..... It is rather late in the day for this unhappy policy, for this creation of a new crime of colour, for this infringement of the gracious words of Her Majesty's proclamation."

The agitation had little influence on powers that ruled the destiny of India. A great many friends of India in England also did their best but they were totally unable to influence the course of events. One consequence of the reorganization scheme was an offer to Dr. Rây to take up the principalship of the Rajshahi College. This he declined, as accepting this offer would have meant cessation of research activities. As he was still busy over the second volume of the *History of Hindu Chemistry*, he would not have been able to consult the library of the Asiatic Society which was absolutely essential for the purpose. Dr. Martin was the Director of Public Instruction to whom Dr. Rây made a representation. Dr. Martin supported him and knowing that Dr. Rây was a distinguished chemist engaged in original research in the Presidency College, after weighing the pros and cons, decided to abandon the idea. "The Lt. Governor agrees in thinking that no hard and fast rule can be laid down in the case of several of officers referred to;" this was the notification that appeared soon



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afterwards in the form of a Government resolution in the *Calcutta Gazette* of March 26, 1897.

In 1904, when Acharya Rây had already established a sound reputation, a young Irish man Mr. Cunningham was posted at the Presidency College as an additional professor. He was in the I.E.S. He was broad in outlook and was an enthusiast. In his class lectures, he often used to say that it was a curious anomaly that he a very junior man should be officially regarded as senior to Dr. Rây, only because he was a member of the I.E.S. He would tell the students that he had many things to learn at the feet of Dr. Rây. He openly sympathized with Indian aspirations. The new university regulations had just then been inaugurated. He did his best to improve the laboratory facilities of the Presidency College and also helped Asutosh Mookerjee with advice regarding university matters. These activities were not unknown to the authorities, but they took no active notice. But he wrote a private letter to a Member of the Parliament criticizing the administration of the Local Government. This letter was shown to many Members of the Parliament who were trying to help India. Eventually the Secretary of State for India came to know of it and the Director of Public Instruction (Sir Archdale Earle) had to deal with Cunningham. He was threatened with dismissal and ultimately he was sent to an obscure place in Chota Nagpur where it was thought he would not be able to do much mischief. He died of fever at Ranchi in 1911. There is a tablet in his memory, which was erected by his friends and pupils on the wall of the Baker Laboratory of the Presidency College.

While writing the *History of Hindu Chemistry*, it occurred to Dr. Rây that it was time that steps were taken to find alternative occupation for the large number of chemistry graduates that were being turned out. It had been mentioned that the object of founding the Calcutta University was to produce teachers for schools and colleges that were coming up or for manning the junior posts in administration. A saturation point was being nearly reached. He recalled that when he first entered service he had gone to Darjeeling to make representation to the D.P.I. that an injustice had been done to him. Croft had told him on that occasion. "There are other walks of life open to you. Nobody compels you to accept this appointment". A good many of talented young men were taking up law as that was an independent profession. N. N. Sarkar who later on became a member of the Viceroy's Council was a chemistry graduate, but seeing that there were no prospects in the teaching line he took up law and soon rose to the position of the leader of the Calcutta Bar. Similarly, Asutosh Mookerjee was a brilliant mathematics graduate. He was offered a teaching post in the Provincial Service. This was declined by him and he also took up law. Thus it will be seen that the best talents were being lost to science because of the closed door to higher appointments. Acharya Rây decided that industries should be established if this wastage



of talent was to be avoided. This subject will be dealt with in another chapter where his activities in this direction will be recounted.

SECOND VISIT TO EUROPE

Having established some reputation as an investigator, Rây decided that the time had come to visit Europe again and see for himself the progress made since his student days. The problem was one of funds. Government officers proceeding on furlough were granted certain facilities if they belonged to the superior services. Halting allowance was paid in addition to pay, if a portion of the time was utilized in visiting institutions and studying developments of science. J. C. Bose was allowed this privilege partly because he belonged to the Imperial Service, but chiefly on account of his high scientific reputation. Dr. Rây was a member of the Provincial Service, he could not rightly claim this privilege. All the same, he informed the D.P.I. that he intended to proceed abroad on leave, but months elapsed and no reply was received. One day he was forwarded a copy of minute of the Government signed by Lord Curzon and Lord Kitchener that natives of India who had distinguished themselves in research should not be debarred from enjoying the privilege simply because they belong to the Provincial Service. Pedler was instrumental in bringing about the change in the rules as he wrote a strong note supporting Dr. Rây's claim to be considered as a distinguished original investigator. Dr. Rây proceeded on leave ex-India in August 1904. He joined the Davy-Faraday Laboratory and made friends with Dewar who was engaged on the liquefaction of gases at that time. He also came in close contact with Ramsay. He spent the Christmas in Edinburgh where he renewed acquaintance with old friends. He attended a dinner given by the Royal Society of Edinburgh where his old professor, Crum Brown, proposed a toast to Dewar and to him. From Edinburgh he went to see also his friend James Walker who was now a professor at Dundee. He visited Manchester, Leeds and Birmingham where he made acquaintance of celebrities like Dixon, Perkin Jr., Smithells, Frankland and other famous chemists. He worked for some time at the Davy-Faraday laboratory and then left for the continent. Ramsay had given him several letters of introduction to German chemists. He met Erdman. A few years later P. C. Mitter worked with Erdman. He met van't Hoff who was then engaged in solving the problem of oceanic salt deposits. Van't Hoff enquired of him if he knew Dr. Aghore Nath Chattopadhyaya whom he remembered very well. Aghore Nath had proceeded to the continent with a Vans Dunlop scholarship from the Edinburgh University and met van't Hoff in 1875. Chattopadhyaya was a brilliant man. On return to India he had taken an appointment in Hyderabad where he got soon lost in vortex of politics.

In France, Rây now met Berthelot personally who took great pains to take him round. Berthelot was the Perpetual Secretary of the French Academy of Science. Rây was presented to the Academy of Science and



a brief account appeared in *La Nature*. In Paris he met Sylvain Levi. The laboratory of Moissan was visited. Thus this second visit to Europe enabled him to make many contacts as now he had acquired some reputation, and doors easily opened to receive him. One good thing that came out of this visit is the lifting of some restrictions imposed on a Provincial Service man who could now enjoy some of the rights of the superior cadre.

On return to Calcutta, he told his pupils of what he had seen and the men he had met. This kindled considerable enthusiasm among the youthful chemists and showed that slowly but surely India was gaining her rightful position in the scientific world. All that was required now was to put the shoulders to the wheel and the chariot of progress would soon be on the move.

THE NEW REGULATIONS OF THE CALCUTTA UNIVERSITY

A trio of brilliant young men appeared on the scene about 1909. H. K. Sen, B. B. Dey and P. Rây were students of the same class. A close friendship existed among the three. B. B. Dey and H. K. Sen were almost inseparable, although outwardly the two differed a great deal in character and temperament. Dey was shy, reserved, a man of few words, silent and determined. He gave the impression of being reserved, but those who knew him well found he had a very warm heart. H. K. Sen was genial, compassionate, full of spirits, loud in his assertions and an extremely soft-hearted, kind man. On innumerable occasions he had been duped but he never learnt a lesson and was willing to be imposed upon again. After a brilliant career at Calcutta, Sen proceeded to London to work in the laboratory of Professor J. F. Thorpe, where his friend B. B. Dey had preceded him some months earlier. Both got the D.Sc. of the London University almost at the same time. Sen helped in solving some problems for the British Admiralty during World War I and enjoyed great reputation among his fellow English workers. Dey studied the 'coumarin condensation' and submitted an elaborate thesis which could be regarded as a model of patient work. The character of the man could be seen reflected in the paper.

On his return to India, Sen obtained a post in the Tata Iron and Steel Company, which he left for another with Steel Brothers in Rangoon. He, however, soon returned to Calcutta to take up the newly created post of Professor of Applied Chemistry. A man with unbounded enthusiasm, Sen would admit no defeat. He tackled his new job with vigour and spread his research activities in many directions. High pressure reactions, glass technology, enzyme chemistry, thermodynamics and a host of other subjects of diverse nature attracted his attention. His pupil Mahendra Nath Rudra was professor of bio-chemistry in Patna. Another student of his, U. P. Basu, took up industrial chemistry and is now the head of the research division of Bengal Immunity Co., Ltd. Sen left Calcutta to take up the



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post of Director of the Indian Lac Research Institute and later was appointed the Director of Industries in the Bihar Government. His premature death was a great loss to Indian science.

B. B. Dey succeeded Acharya Rây on his retirement from the Presidency College, Calcutta, but was later transferred to the Presidency College, Madras. Dey developed three lines of investigations, synthetic chemistry, biochemistry and electrochemical reactions. He was extremely popular with his students and was an excellent lecturer. Among his pupils the names of T. R. Seshadri, K. Venkataraman and T. R. Govindachari may be mentioned. Chemical research at the Madras Presidency College had been started by Simonsen, but he did not stay long enough at Madras to be able to create a school of active chemical research. Dey's appointment at Madras may be regarded as resulting in the first systematic attempt to foster research work there. Dey's laboratory was very helpful during the World War II, when large amounts of glandular products such as adrenalin, pituitrin, insulin, etc. were made and supplied to the Army. Dey's electrochemical researches led to his appointment as the first Director of the Electrochemical Institute under the Council of Scientific and Industrial Research at Karaikudi. It will be seen that another of Acharya Rây's pupils was instrumental in firmly planting chemical research in the South.

The notable contribution of P. Rây will be mentioned later on as his activities fall within the orbit of those of Acharya Rây at the University College of Science.

Sometime in 1910 a remarkable incident happened when J. N. Rakshit came to Dr. Rây as an assistant. Rakshit had failed to graduate and had decided to do without a degree. Dr. Rây was struck by Rakshit's ability to blow glass and improvise apparatus. Rakshit was a standing example of Dr. Rây's favourite idea that a mere university degree was not a correct measure of ability and that a strict adherence to syllabus curtailed initiative. Rakshit stayed with him for a short while. He obtained a post in the Ghazipur Opium Factory and served the Government as opium chemist for many years. He has carried out interesting investigations on opium alkaloids and developed new methods of estimating morphine and codeine.

N. R. Dhar was the first pupil of Dr. Rây to take up investigations in the field of physical chemistry. Their joint publication on the vapour density of ammonium nitrite was a remarkable piece of work. It showed that ammonium nitrite, hitherto regarded as a fugitive compound, could be vaporized and its vapour density measured. This paper was read at a meeting of the London Chemical Society. Ramsay and Veley complimented the authors for an extremely important piece of work. Later on, Dhar proceeded abroad and obtained the degree of D.Sc. from London



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University and Dr. es Sc. from Paris University. Dhar was appointed to I.E.S., the door of which was now partly open to the Indians, as a professor at the Muir Central College, Allahabad. He built up a thriving centre of research at Allahabad. His main lines of investigation were photo-chemistry, colloids and later on agricultural chemistry. Numerous pupils of Dhar found employment in various universities of India and made their mark wherever they went. The universities of Lucknow and Agra and other newer universities received Dhar's pupils as professors. K. C. Sen, a pupil of Dhar, was the Director of Dairy Research Institute at Bangalore.

Rasik Lal Datta was a remarkable character. He was full of grit and had indomitable will to succeed. He submitted himself to rigorous self-discipline. He had collaborated with Dr. Rây on the nitrites but soon struck out new lines of investigation for himself. He was the recipient of the first D.Sc. degree under the new regulations. He trained up a number of investigators. The names of Phuldeo Sahay Varma (Benaras Hindu University), Nihar Ranjan Chatterji (Tropical School, Calcutta) and Loke Nath Misra (Ravenshaw College, Cuttack) come to one's mind. His pupil Bibhu Charan Chatterji obtained a Ph.D. under Robinson and was appointed in the chemical laboratory of the Calcutta Corporation. Datta later joined the Bengal Government as Industrial Chemist and did much useful work in the establishment of some industries in the State. He made an extensive contribution on the halogenation of organic compounds. His tragic and untimely death was a great loss to the country.

The new regulations of the Calcutta University were to come in force from 1910. The year 1909, may therefore be regarded as the year of transition. It so happened that this year was remarkable for the advent of several young men who by their efforts were to make future history. Satyendra Nath Bose, Manik Lal Dey, Jnanendra Chandra Ghosh, Jnanendra Nath Mukherjee, Pulin Bihari Sarkar matriculated this year, and joined the Presidency College. Meghnad Saha was also a matriculate of this year but he joined the Dacca College. Later on he migrated to the Presidency College for his B.Sc. Nilratan Dhar was senior to this group by a couple of years and Rasik Lal Datta was senior by about three years. Soon these young men of different age groups formed a close friendship among themselves. Dr. Rây came to know of this group and became greatly attracted to them. He used to visit those who were residents of the Hindu Hostel quite regularly. These promising youngmen in the formative stage of their career received full measure of daily contact with the great master. It might be stated that a good deal of their future success could be traced to this contact.

In 1912, the Congress of Universities held its first session in London. The Syndicate of the Calcutta University elected Dr. Rây as their delegate. He proceeded to London with Deva Prasad Sarbadhikari who was the



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other delegate. He availed himself of the opportunity and also attended meetings of learned societies connected with chemical science. He read his paper on ammonium nitrite before the Chemical Society, London. The *Nature* remarked as follows :

"Prof. P. C. Rây has added to his success in preparing ammonium nitrite in a tangible form, a further accomplishment in determining the vapour density of this very fugitive compound".

At the Congress of Universities, he spoke on the disadvantages of the Indian graduate in pursuing his post-graduate studies in a British university. "My Lord, I plead for a more generous recognition of the merits of an Indian graduate: he has, I am afraid, the badge of inferiority stamped upon him simply because he happens to be an India-made ware. I can speak with some degree of confidence about the particular subject which I have the honour to profess, namely chemistry. Now, of late there have been some brilliant students engaged in post-graduate researches and their communications find hospitable reception in the columns of the leading British chemical journal; I take it that they are considered as of a fair degree of merit and yet it is a strange anomaly that when the authors of these investigations come over here and aspire for a high British degree, they are made to go through the trodden path in the shape of having to pass the preliminary examinations and this has a depressing and deterrent effect upon the enthusiasm of our youths. I think the suggestion made by a previous speaker that such a scholar should only be made to pass through probationary period under the guidance of a teacher whom he chooses and if he fully satisfies him the Colonial or Indian student should at once be allowed to go up for the highest degree on the strength of his thesis alone is a sound one."

"My Lord, I do not for a moment claim that the teaching our universities impart is of the same degree of efficiency as in the sister British universities—in fact we have much to learn from you—but I beg leave to remind you that in spite of their many defects and drawbacks, our universities have produced some of the brightest ornaments of our country. The foremost lawyer of Calcutta—a man renowned throughout India for his high forensic attainments—is a graduate of the Calcutta University. Three of the most eminent physicians and surgeons of Calcutta, who have attained phenomenal success in their professional career are, again, graduates of my own university, and last but not least the present Vice-Chancellor of our university, who enjoys the unique distinction of being three times in succession elected to his onerous duties by the Chancellor of the university, who is no other than the Viceroy himself—I say, Sir A. T. Mookerjee is also a product of the same university."

He also attended the 250th anniversary meeting of the Royal Society. Before he left England the joyful tidings of the Calcutta University



establishing University Professorships in several subjects, including chemistry, were received. Sir Asutosh Mookerjee offered him the Chair of Chemistry which was to be founded. Calcutta University, under the able leadership of Asutosh Mookerjee, had broken the trammels of government interference to a large degree. Therefore, this news was very welcome to him as he felt that now will be removed the stigma of working in an inferior position. He replied: "I look upon the proposed College of Science as the realization of the dream of my life and it will not only be my duty but a source of gratification to me to join it and place my humble services at its disposal."

On return to India, however, Dr. Rây resumed his duties at the Presidency College as the College of Science was yet to be built. P. C. Mitter, a former pupil of his, was appointed the Professor of Organic Chemistry and on him devolved the task of construction of the new college. Dr. Mitter had returned after a doctorate in the Berlin University and had worked with Libermann. He visited different centres and submitted a plan for the new laboratories.

Jnanendra Chandra Ghosh, Jnanendra Nath Mukherjee, Manik Lal Dey, Satyendra Nath Bose and Meghnad Saha were now emerging into prominence. They were marked out to be future lecturers of the College of Science when it would come into existence. The World War I broke out in 1914. This acted as a deterrent as supplies of chemicals and apparatus were greatly affected. In the Presidency College, thanks to the foresight of Chandrabhusan Bhaduri, not much difficulty was experienced as he had laid by a good reserve by judicious indenting over the years. The prospects of the new College of Science seemed to be gloomy. In 1916, a promising student from the Dacca College (P. C. Guha) came to the Presidency College as Professor Watson had gone on leave and there was no one to guide him in research work. Guha took up a problem for his M.Sc. thesis under Dr. Rây and soon impressed him by his hard work.

The work carried out by Prof. Rây and his pupils were now referred to as the work of the Calcutta School of Chemistry. This gave him a very great satisfaction as he felt that one of his missions had been fulfilled. It was his dream that a flourishing centre of research would be established one day through his efforts. The *Nature* in its issue of March 23, 1916 observed:

"In connection with the University of Calcutta, 'extension lectures' are being delivered and that on Jan. 10, by Dr. P. C. Rây, the Dean of the Faculty of Science of the University, is before us. The lecture consists of a brief resumé of original chemical researches carried out in Bengal in the last twenty years, and as an appendix a list of 126 papers contributed to various societies such as the *Chemical Society*, *Journal of the American Chemical Society* and others, is given. Some of these papers are of very



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considerable value and interest, and indicate enthusiastic work on the part of this newly created school, which is mainly due to the example and work of Professor Rây himself."

While the school of chemistry of Calcutta got a recognition, it will be proper to mention that in Dacca, through the efforts of Professor E. R. Watson, chemical research was developing steadily from 1908. Dacca College was given recognition for preparing M. A. students in chemistry under the old regulations. The first batch appeared for the degree in 1908. Of the successful candidates, Anukul Chandra Sircar was chosen by Watson for post-graduate research work. He worked on the relationship between colour and constitution—a subject which attracted good deal of attention in those days. Sircar was soon able to submit his thesis for the doctorate and was successful. He entered the Provincial Education Service and after some years in Dacca was transferred to the Presidency College in 1917. Here he worked for several years and took part in the post-graduate teaching after the College of Science was founded. Another product of the Dacca College was Prafulla Chandra Ghosh who later on became famous in the political field. When Acharya Rây was at the College of Science, Ghosh obtained the post of Deputy Assay Master of the Calcutta Mint. His thesis for the doctorate was not quite complete. He secured Acharya Rây's permission to work in the College of Science in his spare time so that his dissertation could be completed. Ghosh obtained his doctorate and after a short service in the Mint, resigned his appointment and joined the movement of Mahatma Gandhi. He was a member of the Congress Working Committee and founded with his friends the Abhoy Asram to do village uplift work. Subsequently he became the Chief Minister of West Bengal for a short time after Independence and later on became the leader of the Proja Socialist Party. Two other pupils of Watson, B. N. Ghosh and S. Ghosh, distinguished themselves and obtained doctorate from British universities. S. Ghosh joined the Tropical School, and did considerable amount of work on plant products. On retirement, he served for a short time as a member of the Public Service Commission of West Bengal. B. N. Ghosh was a co-founder of Union Drug Company. Another pupil of Watson was Kumud Bihari Sen who became the chief chemist of Bird and Co. Ltd. Sikhi Bhusan Dutt after a D.Sc. from London became a Reader in Allahabad University and later on a Professor of Delhi University.

Watson himself was an indefatigable worker. He used to put in long hours in the laboratory. Unlike average members of the I.E.S., he took a great deal of interest in research. He was very popular at Dacca. Ultimately he took up the Principalship of the Technological Institute of Kanpur. Watson had as his assistant professor, B. K. Singh, who joined the Dacca College after a good career in Cambridge. Singh started work on asymmetric nitrogen compounds and on the rotation of camphor derivatives. He was transferred to Patna, Cuttack and for a short time to



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Lahore. On his retirement he worked as honorary professor at the Hindu University, Benaras.

To return to Dr. Rây: the time for the retirement from the Presidency College came. It was a sad occasion for all concerned. An extract from the address which the students gave will show the place he occupied in their hearts.

"When the history of India's intellectual attainment in the modern era comes to be written, your name will be mentioned in the very vanguard of progress as the maker of modern chemistry in India. The credit and the glory of being the pioneer in the field of chemical research and of giving the impetus to scientific curiosity in this country is yours".

In his reply, he mentioned the noble part this institution has played in the making of new India. He hoped that his association with the college would not altogether cease. The formation of the Council of Post-graduate Teaching later on afforded him an opportunity of this association as the post-graduate teaching became the joint concern of Presidency College and the newly founded University College of Science.

UNIVERSITY COLLEGE OF SCIENCE

The princely donations of Tarak Nath Palit and Rash Behari Ghosh made the establishment of the University College of Science possible. Dr. Rây joined this institution as the Palit Professor of Chemistry. The building was ready but on account of the War still being on, the problem arose of properly equipping it. With him came, J. C. Ghosh and J. N. Mukherjee as lecturers of physical chemistry. R. L. Datta came as Assistant Palit Professor. Satyendra Nath Bose and Meghnad Saha joined the physics department as lecturers. There was a lamentable lack of apparatus for want of funds. After a lot of negotiation only an annual grant of Rs. 12,000 for the entire institution could be secured. As there were some half a dozen departments such as chemistry, physics, botany, applied mathematics, etc., the average amount to be spent in each department came to about Rs. 2,000. But Asutosh Mookerjee got a second endowment from Rash Behari Ghosh and a handsome donation from the Khaira Raj, which set the departments going.

But the lack of facilities was a blessing in disguise. As there was little scope for doing experimental research, Ghosh, Saha and Bose embarked on theoretical work. Ghosh was able to give an equation for the conductivity of strong electrolytes, which at that time attracted considerable notice. Saha worked on theoretical problems in physics. His work on the pressure of light and high temperature ionization was begun at this time. Bose was studying deeply the newly propounded theory of relativity.



Many of the students had not been able to come with Dr. Rây from the Presidency College for one reason or another. Priyada Ranjan Rây was incapacitated through a disastrous explosion in the laboratory and had lost the sight of an eye. He was convalescing but was out of the laboratory for nearly two years. He joined the College of Science in the Inorganic Department after some years of teaching chemistry at the City College, Calcutta, in a vacancy caused by the resignation of K. G. Naik. Naik was a Bombay University graduate but was serving in the Berhampur College. Asutosh Mookerjee had heard about his reputation as a teacher and invited him to join the College of Science as Assistant Palit Professor of Inorganic Chemistry. Naik did not stay long. But he came in close contact with Acharya Rây. He collected literature about the reactions of sulphur mono- and di-chloride. He was probably contemplating to start work on the sulphur compounds in which Acharya Rây was interested at that time. But he left for London where he worked on these compounds and later obtained the D.Sc. degree of the London University. He obtained an appointment at Baroda where he was a professor for a very long time. Numerous pupils of Naik made their mark in due course.

P. Rây came in place of Naik and began a spectacular career. It would not be fit and proper to dilate on his meritorious work as he is still happily with us. His investigations in the chemistry of coordination compounds, his work in analytical chemistry and particularly his work on magneto-chemistry will find a permanent place in literature. Numerous pupils of P. Rây are scattered all over the country and they in their turn have made their own mark. P. Rây has also revised and re-edited his master's famous book, the *History of Hindu Chemistry*, which has been published in 1956 by the Indian Chemical Society under the name, *History of Chemistry in Ancient and Medieval India*.

J. C. Ghosh had by now returned from Europe and got the chair at the newly founded Dacca University. There he developed researches in photochemistry, catalytic reactions and a variety of other subjects. Numerous pupils of Ghosh hold important positions in India. A. N. Kappanna held a chair at Nagpur. S. K. Bhattacharya and others have made valuable contributions to chemical science. Kalipada Basu, Madhav Chandra Nath and others occupy important positions. Ghosh moved to Bangalore as Director of the Indian Institute of Science and established an active centre of research. Later on, he became successively the Director-General of Industry and Supply, Director of the Institute of Technology, Kharagpur and Vice-Chancellor of the Calcutta University. The last post he held was an important one as a member of the Planning Commission. Of all his pupils, Ghosh had the good fortune to hold several important positions in different parts of the country and was an able interpreter of Acharya Rây. Ghosh was a facile writer and a very able speaker. Mukherjee developed the theory of electrical double layer and worked



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mostly on colloids on return to Calcutta as the Khaira Professor. He soon had round him a number of capable workers. S. P. Ray Chowdhury, R. P. Mitra, B. Chatterjee and several others have all made their own independent contributions. J. K. Bose distinguished himself in the Agriculture Department of the Bombay Government at Poona. B. N. Ghosh, a brother of J. C. Ghosh, is now Mukherjee's successor in the Science College, Calcutta. Mukherjee went to Delhi as the Director of the Indian Agricultural Research Institute, and later on served for sometime in the Building Research Institute of C.S.I.R. He was also the Administrator of the Board of Secondary Education, Calcutta. Finally he became a member of the Union Public Service Commission.

J. N. Ray, J. C. Bardhan and Pulin Behari Sarkar joined the Science College from the Presidency College. Acharya Rây used to refer to Jnan Ghosh, Jnan Mukherjee and Jnan Ray as "*Jnana-troya*," i.e. "the trio of knowledge".

Another promising young man who joined at that time was Gopal Chakravarty. J. N. Ray after working as a Palit Scholar for sometime was appointed to a university lecturership. An English chemist who had connexions with India in the past decried in a speech the theoretical work in reaction chemistry that was being mostly done by Indian chemists and deplored that no work in plant chemistry had been undertaken. So J. N. Ray asked Acharya Rây's permission to proceed to Manchester to work with Robinson on alkaloids. After two spells of study under Robinson and a term with Pregl at Graz, J. N. Ray was appointed at Lahore, where he became the first direct pupil of Acharya Rây to hold the Chair of Organic Chemistry. J. N. Ray also developed biochemical work at Lahore and founded the first microchemical laboratory in India. Among J.N.'s pupils mention may be made of Colonel N. N. Chopra, Head of the Technical Development Wing of the Army, K. N. Sarin, K. S. Narang, M. L. Dhar (Drug Research Laboratory), K. N. Gaiind, etc. J. N. Ray went to Delhi with Acharya Rây's express permission to act as the Director of Production during the war. He became the Deputy Director-General of Industry and later on Industrial Adviser to the Government of India. Bardhan, after taking the D.Sc. of the Calcutta University, took a London D.Sc. He also worked with Ruzicka and other celebrities. He now holds a chair in the College of Science. P. K. Bose after his doctorate in Calcutta went abroad and gained valuable continental experience in plant chemistry. Among his pupils the most prominent is (Shrimati) A. Chatterji who has made signal contribution to plant products and synthetic organic chemistry with much success. Acharya Rây often used to deplore that Indian womanhood had been lagging behind. The achievements of Ashima Chatterji and other women workers would have filled his heart with joy. P. K. Bose served for a short while at Delhi and then succeeded H. K. Sen as the Director of the Lac Research Institute at Ranchi. He is now the Head of the Chemistry Department of Bose Research Institute. Dr. P. C. Guha, after



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his doctorate, became a lecturer in the Applied Chemistry Department and later migrated to the Dacca University as a Reader. Subsequently, he became a professor in the Indian Institute of Science, Bangalore, where he investigated a variety of subjects including terpenes. M. Goswami, a pupil of B. B. Dey, succeeded P. C. Guha in the Applied Chemistry Department. He obtained a doctorate from France and served the department till his retirement. P. B. Sarkar obtained a doctorate from France and later on held a chair at the College of Science. He had earlier also held the post of Assistant Professor of Chemistry and post-graduate lecturer at the University College. Sarkar's main field of investigation relates to the chemistry of rare earths and allied elements.

In later days Acharya Rây did not take many students directly under him but distributed them among his colleagues. Monmohan Sen took his M.Sc. under J. N. Ray and completed his D.Sc. thesis in P. C. Mitter's laboratory. Among the workers of the later period the names of D. K. Banerji (now a professor at Bangalore), R. N. Chakrabarty, (professor in the Tropical School), P. Datta (professor at the Indian Association for the Cultivation of Science) may be mentioned. R. N. Chakrabarty worked under J. C. Bardhan for his D.Sc. degree.

After B. B. Dey left for Madras, R. N. Sen came to the Presidency College as professor. The post-graduate teaching was by now organized on a co-operative basis. Several promising students worked under R. N. Sen. Mention may be made of S. S. Guha Sircar, D. Chakravarti, Qudrat-i-Khuda and others. Guha Sircar was a reader in the Dacca University and later on became a professor at Cuttack. D. Chakravarti joined the Science College as a lecturer. After a few years as Registrar of the Calcutta University he is now professor at the Science College.

Bires Chandra Guha was a direct pupil of Acharya Rây. He went to Cambridge and London to specialize in biochemistry. His researches on the vitamins particularly vitamin C earned him great reputation. He was appointed to the chair of Applied Chemistry after H. K. Sen. During the World War II he served as Chief Technical Adviser to the Food Department of the Central Government. Later on, he became a member of the Damodar Valley Corporation. He returned to his post at the Science College where his numerous pupils are engaged in researches of importance. Gopal Chandra Chakravarty secured his doctorate of the Calcutta University and obtained a post at Bangalore. The career of this promising youngman was cut short by death in the prime of life.

INDIAN CHEMICAL SOCIETY

In 1921, while Ghosh, Mukherjee and Bhatnagar were students doing research work in the laboratory of Professor Donnan at London, Acharya Rây happened to visit England. It was his custom often to drop in at the



University College during the lunch hour. The conversation turned to the subject of publication of research papers by the Indian scientists for which no facility existed in India. J. C. Bose had to publish his paper on coherer action in the *Journal of the Asiatic Society* as it was deemed necessary to publish the results quickly. Communication of the paper of such importance to Europe and its subsequent publication would have taken months. The reprint of this paper was sent to Raleigh who seeing the importance of the subject had it republished in the *Electrician*. It was then that the work attracted the attention it deserved. The same thing happened with Acharya Rây's paper on mercurous nitrite. It was first published in Asiatic Society's journal for the sake of ensuring priority but *Nature* truly remarked, that this journal could hardly be regarded as a scientific magazine. With increasing number of workers in the field the need for a journal from India was keenly felt. The resolve was made at the lunch table that an Indian Chemical Society should be founded. On return of Ghosh, Mukherjee, and Bhatnagar to India steps were taken to form the Society. Acharya Rây was elected as the Founder-President and Mukherjee became the first Secretary.

Funds presented a problem. The Calcutta University generously agreed to print 1000 pages of the journal of the Society free of cost. A small annual grant was received from some of the universities. Acharya Rây made a handsome donation from his own purse. The two rooms which the Society occupies now at the College of Science was constructed from the money which Acharya Rây made available. It is sad to reflect that the public support of the Society has not been received as was hoped for at one time. Recently, owing to pressure of work in the Calcutta University Press, the University has made a grant for the printing of the journal in lieu of free printing of 1000 pages per annum.

The number of fellows has increased from 109 at the time of the formation of the Society to 731 at the present time. Several subscribers are from Europe and America. Many journals are received in exchange. The primary object in starting the journal was to have a vehicle for the quick publication of researches done in India. This object has been amply fulfilled. Contributions are also received from scientists abroad.

THE DECLINING YEARS

After 1925, the activities of Acharya Rây in teaching and directly guiding the research work of students diminished somewhat as many able pupils were now taking a larger part in this work. His own personal researches were carried on with the help of a few assistants. Social work now occupied much of his time. These will be described in another chapter.

Having seen his pupils established at different university centres he now devoted his time to visit them periodically and make the acquaintance



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of his "grand-pupils". He often used to visit Dacca, Allahabad, Lahore, Madras, Bangalore, Nagpur and other centres. The students in those places used to eagerly await these visits. He often lectured to them on general subjects and visited them at the laboratories. Thus these students not only knew him through their teachers but also had opportunities to know him at first hand. This contact helped a great deal in promoting the spirit of enquiry which Acharya Rây's pupils who were professors at these places had undertaken to foster. Thus the torch he lighted in Calcutta in 1888, helped ultimately to illumine the dark corners of many minds in this sub-continent. There can be no doubt that he was one of the few who brought about the renaissance in this country. The students of the Presidency College were right in saying at the time of his retirement that, when the history of modern India comes to be written, he will be remembered as the person who was in the vanguard of progress.

ASSESSMENT

The scientific work of Acharya Rây has only been briefly mentioned in this article. A fuller account and assessment of his scientific contributions will appear in the Centenary Volume to be issued by the Indian Chemical Society. Those interested will no doubt refer to that volume. It may be stated here that Rây should be judged by the standard of his time. It is with that object, a detailed account has been given of the background in this article.

Some of his work, e.g. on mercurous nitrite, amine nitrites and hyp-nitrites will be considered good by the standard of the future. His work on the long-chain sulphur compounds have acquired new significance with the development of our knowledge of high polymers. His work on the varying valency of gold and platinum will amply repay further investigation by the newer methods of organic-physical chemistry. Whatever may the verdict of future be it will be admitted by all that he worked in a critical period of India's history and largely through his untiring efforts was able to break down a few barriers.

To appreciate the uphill work he did, one has to remember the meagre grant and facilities he had, yet he was able to accomplish so much. After Independence crores are being spent on research. The average worker has no idea what it was like to work under those handicaps. Can it be that it would have been better if one had to count the pennies and facilities were not too vast? Perhaps the spirit to win under difficult circumstances becomes stronger and better results are obtained.

There is a divine hand that guides the destiny of races. It was perhaps divine dispensation that conditions of hardship should exist, so that a spirit like Acharya Rây's may emerge out of the misery and tribulations of the race.

IV

PRAFULLA CHANDRA : INDUSTRIAL DEVELOPMENT OF INDIA

HISTORICAL BACKGROUND

In order that a proper assessment could be made of the economic background of the Swadeshi Movement, it is necessary to recapitulate the economic history of India through the ages. India's wealth was fabulous and throughout the recorded history of this country it had attracted foreign invasion. This country was not the economic cripple the twentieth century found it to be. Pliny wrote in the 1st century A. D. that Rome paid every year a million sesterces to India for the goods she bought from India. He complained that the drain of gold from Rome had been weakening Rome and making India strong. The discovery of numerous gold coins of Roman origin corroborates this statement. *Periplus of the Erythrean Sea* gave an account of the external trade of India. The Maurya Emperors subsidized ship-building which carried goods to the Greater-India of the East, namely Java, Borneo, Bali, Sumatra, etc. The influx of wealth through trade from outside made India a very rich country although her resources of gold were limited. The import of tin from Malaya and its processing in Bengal was carried out on an extensive scale. The Sanskrit name for tin is *bangā-dhatu* which is significant. India had no workable deposits of precious metals, yet by export of her manufactured goods she was able to build up a sound economy. During the first few centuries of the Christian era, the economic position of India was unrivalled.

Even after the advent of the Europeans, the position of India was very sound. The Portuguese had developed a thriving trade in the early 17th century, but their trade in the 18th century was negligible. The Danes had never obtained much of a footing in Bengal. The French trade was small till Dupleix came to Chandernagore, but with his transfer to Pondicherry in 1741 it rapidly declined. The Dutch and the British alone were in the field. On the acquisition of political authority by the East India Company, the Dutch were ousted. The volume of inland and foreign trade, other than that carried on by the foreigners, was very large. During the first half of the 18th century, Hindu, Mohammedan and Armenian traders had dealings with Turkey, Arabia, Persia and Tibet. The balance of foreign trade was always in favour of India. As most of these trades were carried on from Bengal, the gold received as payment of the balance of trade enriched Bengal considerably. In fact during 1708-1756 (the pre-Plassey period) bullion formed nearly three-fourths of the total imports to Bengal, or in other words, exports exceeded imports in the ratio 4:1. The most important articles of export were cotton and silk piece-



goods, raw silk, sugar, salt, jute, saltpetre and opium. The Bengal cotton goods were exported by European companies to Europe. The Dutch used to export a million pounds of Cossimbazar raw silk to Holland or Japan. During Alivardi Khan's reign, 70 lakhs of rupees worth of raw silk was entered into the customs register for export. Down to 1756, a considerable volume of trade of Bengal in sugar used to be carried on with foreign ports like Muscat, Mocha, Jedda and other places in Africa.

The battle of Plassey was a turning point in the economic history of India, Bengal being the biggest sufferer. Then began an economic drain, known as the Plassey drain. Mir Jafar and Mir Kasim had to pay enormous sums of money. During 1757-1765, five million sterling went out. From 1765, when the Company received the *diwani*, the surplus revenue of Bengal was invested in purchasing the articles exported from India by the Company. Thus up to 1780, another ten million pounds were drained off. It has been estimated that the total drain to England from Bengal between 1757 and 1780 amounted to thirty-eight million sterling for which Bengal received nothing in return. This would be equivalent to about 500 crores of rupees at the present market value.

The Company's servants started a new oppression which ruined the principal export earner of Bengal, namely the textile industry. In order to get a regular supply of cotton goods, the company entered into forward contracts with the weavers to supply stipulated quantity of cloth by a certain date. Armed with this new weapon, the Company's servants flogged the weavers to sign contracts at most ridiculous terms. Rather than be forced to accept under threat of flogging contracts which did not give them a bare subsistence, many cut off their thumbs so that owing to this infirmity they were exempt from accepting the contracts. The result was that the weaver community became scarce. Verelst, writing in 1767, complained of unusual scarcity of weavers. A similar policy was adopted for silk. Thus, two thriving trades of Bengal were killed. The ruin was completed by unfair legislation in England. Two Acts were passed by British Parliament in 1700 and 1720 which stated that cotton and silk goods imported from India into England "could not be worn or otherwise used in England" There was, however, great demand for these goods on the continent; the goods imported into English ports used to be re-exported to the continent. Owing to the wars in Europe and the American War of Independence this re-export business nearly ceased, putting the last nail into the coffin of Indian trade. To add insult to injury, the British calico-printers in 1780 petitioned to stop all imports from Bengal for a period of 4 years. This restriction placed the nascent cotton industry of England in a strong position. The Company now started importing raw cotton into England instead of finished goods and soon the stage was set for wholesale imports of cotton goods into India, a country which had supplied these to the then known world throughout the ages. The annual export from England into India was £1.2 million between 1790 and 1800, but by 1810 it reached the staggering



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figure of £18 million per annum. Thus within half a century of the battle of Plassey the entire economy of Bengal changed and it became hopelessly crippled. Till the last day of British rule neither Bengal nor the rest of India was able to recover from the blow. The circumstances under which the flourishing trades of Bengal were crushed and the inland trade passed to other hands were one of the reasons for the vanishing of the very spirit of commerce which Acharya Rây never ceased to lament. The lack of capital owing to the drain mentioned before and the unsettled condition due to misrule of the early British days left no spirit of adventure in the people. The Permanent Settlement also was to a large extent responsible for what happened later. It gave impetus to agriculture and prompted investment of capital in land. The loss of industry drove the poorer classes to agriculture, and the available capital to land investment. Owing to the discovery of steam engine, whatever little chance there was of reviving these industries entirely vanished. The loss was further accelerated by the British Parliament passing discriminatory legislation which ultimately ruined Indian industry. India became a plantation for the production of raw materials such as cotton, jute, tea, etc. and had to depend almost entirely for manufactured goods from the rulers of the country or their friends. The Government of the country merely looked on!

India had a good merchant shipping fleet even in 1800. It had been mentioned that the Mauryas subsidized ship-building and the maritime activity of the Indians surpassed that of other nations of the time. Fa-Hien in the fourth century A.D. gave an account of the trade and shipping of the Indians. During Mohammedan rule this activity remained unabated. In 1775, Bombay had a dockyard which was considered to be the best equipped dockyard in the world. From 1781 to 1800, 385 ships of total tonnage of about 17,000 tons had been built on the Hooghly. In 1800, Lord Wellesley was able to testify that the Port of Calcutta contained about 10,000 tons of shipping built in India capable of carrying cargo to London. Some ships built by Indian builders had also been used in the battle of Trafalgar. "The arrival in the Port of London of Indian produce in the Indian built ships created a sensation among monopolists, which would not have been exceeded if a hostile fleet had appeared on the Thames. The ship-builders of London took the lead in raising the cry of alarm; they declared that their business was on the point of ruin and that the families of all the shipwrights were certain to be reduced to starvation" (Taylor's *History of India*). This agitation put a halt to Indian ship-building activity. The advent of steam engine would also have finished it in any case. Those foreigners who complain about protective policy followed by the Government of India after Independence should ponder over the matter and realize that we lost our trade through no fair competition. In 1800, one William Jones came to Calcutta as a mechanic in the service of John Company but he soon started a canvas factory in Howrah. Before then every inch of canvas had to be imported. This factory did well. In 1811, an expedition to Java was held up on account



of shortage of cartridge paper. Jones started a factory for its production and the expedition was able to sail. This factory can be regarded as the first paper factory in India. But it soon closed down because the emergency was over, and, as time was no factor, supplies could be imported *via* the Cape. Jones bitterly complained against the short-sighted policy of the rulers. He maintained that if a foothold in India was to be maintained, its resources should be developed. This went unheeded. Almost 130 years later, the Government of India realized in 1939 that unless supplies were developed in India the outcome of the World War II would be ruinous. Jones was a most remarkable man. It was he who opened the first coal mine in Burdwan district and started mining coal. It was at a time when the prevalent idea was that coal requirement of India should be obtained from England. This would have delayed the arrival of the coal age in India for a long time. Within a few years of his operation, Jones was able to raise the production to 70,000 tons a year. Therefore, he might be regarded as the pioneer of coal age in India. He spoke Bengali fluently and was called *Guru Jones* by the people of Howrah. He died in Calcutta in the fifties of the last century.

The advent of cheap machine-made goods from the West gradually changed the India's way of life; whatever old Indian products had survived the competition were completely ousted. An analysis of imports during the close of the nineteenth century is revealing. Silk goods, cabinet wares and furniture, clocks and watches, pasteboard, stationery, scents, cigarettes, cars and carriages, bicycles, motor vehicles, etc. figure prominently in the list of articles imported. Matches, sewing-machine, umbrella, soap, glassware, enamelled iron-ware, hurricane lamps, etc. were also imported. Slowly but steadily the Indian market was flooded with these articles. India could export agricultural products such as tea, jute, shellac, raw hide, etc. to earn foreign exchange in order to pay for the imports. The adverse balance of trade constituted further drain to make the people more impoverished. This state of affairs could not last long. The stupor was broken when the Swadeshi Movement was started with a political motive but the economic justification of this movement was no less than the political.

It will be remembered that cotton goods were once a profitable item of export of India. India was now an importer of these. Therefore, the first attention was directed to this industry. Apart from a few isolated instances, e.g., a mill started in Calcutta in 1818, Bombay had been in the forefront of this industry. After 1877, several mills were started in Nagpur, Ahmedabad, Sholapur and some other places but they had to wait till they received new impetus from the Swadeshi Movement started in Bengal in 1905. The immediate effect of this movement was that the proportion of manufactured exports to total exports of India rose to 22 per cent in 1907-8 from 16 per cent in 1892. The proportion of manufactured imports to total imports was 52 per cent; it was 57 per cent in 1892.



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Relating to the organized industries the most important event was the starting of the Tata Iron & Steel Works. Another iron works had also been established at Kulti. These two concerns rendered yeoman service during the World War I.

INDIAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENTIFIC EDUCATION

With the realization that the country had to adapt itself to changing economics, a far-sighted step was taken by Jogendra Nath Ghosh, son of Justice Chandra Madhav Ghosh. He realized that the formal scientific education then imparted by the colleges in Calcutta would not bring about a revitalization of industries. He decided that as many promising young men as possible should be sent abroad to learn the technology of the West. He was able to collect some funds and secured the collaboration of Sir Daniel Hamilton. The latter helped in securing free passages as he was connected with B.I.S.N. Co. The students were sent to Japan, America, England and other countries in which proper technological education was possible. This organization functioned for a number of years. Many students who were sent out did well on return. K. C. Das was trained in the U.S.A. and on return had difficulty in securing any stable employment on account of his political background. This was a blessing in disguise as he later on became the co-founder of the Calcutta Chemical Co. Ltd., a thriving concern now. R. N. Sen was sent to Leeds. On return, he joined the Education Service but was associated with K. C. Das in the formation of Calcutta Chemical. Similarly G. C. Sen returned after training in dye-stuff technology but the country was still not prepared for a successful dye-stuff industry. This industry did not take its root in England even well after the World War I. Experts trained under this scheme were responsible for the founding of various industries like pottery (Majumdar) and printing ink industry (Jogen Bose), Bengal Canning (Anath Bandhu Sarkar) and Bengal Waterproof Co., Ltd. (S. M. Bose). S. C. Roy was connected with Lister Antiseptic and Dressing Co., Ltd. Some were connected with the match industry (P. C. Roy) and some took up silk manufacture and sericulture (Rasik Ghosh). Many of them made their mark in the industries concerned. The inherent difficulty, the apathetic attitude of the Government, was the stumbling block. In some cases, the trainees found on their return that the industries they had chosen were the monopolistic field of vested British interests. Many of these persons were personally known to Dr. Rây who followed the careers of these men very closely. Many of them used to consult him for advice in their respective fields and he was always willing to give whatever advice they needed. He was himself trying to establish a chemical industry from 1893 and knew the difficulties one had to face.

BENGAL CHEMICAL AND PHARMACEUTICAL WORKS

Bengal Chemical and Pharmaceutical Works was the first industrial



venture of Dr. Rây. He had been thinking for a long time that if the educated youths of this country were to be gainfully employed, industries must be started. Since sulphuric acid was the key chemical, he decided to make a beginning with this. D. Waldie & Co. of Cossipore had already started its manufacture. Besides Waldie's there were three or four small firms round about Calcutta. He inspected these small units whose daily production was not more than 10 cwt. a day. They were also manufacturing hydrochloric acid and nitric acid in earthenware vessels in a most crude manner. These small units were making profits as the freight rate of the acids was very high; hence, they could easily compete with any imported article. One of his co-villagers who was a junior lawyer had purchased a small factory from one Asgar Mandal, apparently an uneducated person and he invited Dr. Rây to visit the "works". He went to see it in the company of Chandrabhusan Bhaduri. The factory consisted of two chambers $10' \times 10' \times 7'$ each without any arrangement for condensing nitrous fumes. He saw the factory and thought of improving the procedure. Rây's first thought was to produce calcium superphosphate and some bones were secured from nearby slaughter houses. The neighbours objected to the bones being dried on the roof of Dr. Rây's house, but a friendly nitric acid maker allowed a plot of land he had rented in Manicktala to be used for the experiments. The calcined bones were treated with sulphuric acid and soda. Thus superphosphate and sodium phosphate were prepared in solution from which crystals of sodium phosphate were ultimately obtained. Next items to be experimented upon were Syrup Ferri Iodide, Liq. Bismuth, Liq. Arsenicalis, Spirit Aether Nitrosi, etc. Second-hand empty bottles were procured from dealers. The sulphuric acid factory which his co-villager had acquired could not be run by him profitably. This was offered to Acharya Rây for the sum of Rs. 1,000/-. He paid whatever cash he had and for the balance he signed a hand-note. The place where the acid factory was situated was about 6 miles from the Presidency College. The summer vacation of 1893 was approaching, Bhaduri suggested that the vacation might be utilized to give a start to the enterprise. He and his brother Kulabhusan Bhaduri took up their quarters in a mud hovel. They made a thorough study of the process employed and came to the conclusion that the method was crude and wasteful. They recommended modernization of the plant which could not immediately be done on account of lack of funds. In the meantime products like Syrup Ferri Iodide were released to the market but the response of the dealers was not spontaneous. The customers had a prejudice against indigenous products and a great deal of buyers' resistance had to be overcome. But patriotic persons like Bhutnath Paul of B. K. Paul & Co., the leading dealers of medicine, helped Dr. Rây. After the day's labour at the Presidency College, he would start working at home till late in the evening, preparing materials for which orders had been received. A fellow student of his Calcutta college days, Amulya Charan Bose joined hands with him. He was a successful medical practitioner and had enthusiasm for the development of indigenous manufacture,



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and was thus of great help. Soon Radha Gobinda Kar, Nilratan Sarkar and other promising medical men evinced a keen interest and gave unstinted support. Acharya Rây has gratefully acknowledged their help in his autobiography. At the suggestion of R. G. Kar and Amulya Charan Bose, a start was made for the preparation of some of the Ayurvedic remedies which was in great vogue in those days. Amulya Charan Bose started using these preparations in his prescriptions. Slowly but surely, these caught on.

Dr. Rây had also secured the help of Satis Chandra Sinha who had taken the M.A. degree in chemistry. This gentleman was of invaluable help as he relieved the pressure on Dr. Rây considerably. Sinha forsook the legal profession which he would have otherwise joined and plunged heart and soul in the new venture. He also brought in some of the much needed capital. One evening on return from his constitutional walk, Acharya Rây found that Sinha had died through hydrocyanic acid poisoning while at work. This was a great blow to him. This gentleman was a brother-in-law of Amulya Charan Bose, his colleague. This made the blow even more painful. The sulphuric acid factory at Sodepur was in a bad shape and needed capital which neither Dr. Rây nor Amulya Charan Bose had at their command. To make matters worse his father died at that time and as the property was heavily mortgaged, nothing very much could be salvaged. After very careful consideration, it was decided to scrap the acid factory. The lead sheets fetched about three or four hundred rupees, hence it was not a total loss. Amulya Charan Bose contracted bubonic plague while attending on a patient and passed away. Thus the young venture was dogged by misfortune in every conceivable manner. Dr. Rây therefore decided to convert it into a public limited liability concern, because funds were needed. The capital stood at about three thousand rupees.

On April 12, 1901, Dr. Rây along with Chandrabhusan Bhaduri, Bhutnath Paul, Kartick Chandra Bose, Charu Chandra Bose and the widows of Amulya Charan Bose and Satish Chandra Sinha formed a limited liability company which was named "The Bengal Chemical and Pharmaceutical Co., Ltd." The stocks and assets were purchased from the old company. At the end of a year's working the balance sheet showed a capital of Rs. 23,500/-. The company now recruited some very able men who helped in its expansion and growth. Bhaduri, the close associate of Dr. Rây, was still there to offer guidance. He quickly introduced innovations, and crude equipments were gradually replaced. Steam pans, disintegrators, vacuum stills, filter-presses and other modern adjuncts of a pharmaceutical factory were secured. Kartick Chandra Bose being a medical man was able to fill the void created by the death of Amulya Charan Bose. Kartick Chandra was appointed Managing Director of the firm in 1902 and ably filled this post till 1907. Bhutnath Paul and Kartick Chandra Bose were appointed joint Managing Agents from 1907 till 1909 after which the managing agency system was abolished. The accommodation of the factory at 91, Upper Circular Road proved inadequate. A plot of land measuring about 10 bighas was



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purchased at Manicktala. Work started for the erection of a sulphuric acid plant at the new site. In 1905, the new site was occupied and the sulphuric acid plant came into operation in 1907. The most notable event was the recruitment of Rajsekhar Bose, (M.A. in chemistry, 1903), who became the manager in 1904. Rajsekhar Bose quickly rose to this exalted position because of his extraordinary ability and technical acumen. The most important facet of his character was his ability to train others and the quality of natural leadership. After serving the concern for over 30 years Bose retired in 1933 as Managing Director. He was a Director of the company from 1924 till his death in 1960. Another noteworthy servant of the company was Satis Chandra Das Gupta who was for many years the Factory Superintendent. He retired from the company in 1925 to join Mahatma Gandhi in his national movement with particular attention to 'khadi' work.

The sales of the company rose from Rs. 23,371/- in 1901 to Rs. 3 lakhs in 1910. The capital in 1915 was estimated at about Rs. 4 lakhs. The World War I, gave a great impetus to the growth of the factory. Additional chambers for the sulphuric acid were erected at this time. A large order for fire-extinguishers was placed on the firm by the Government. It was at this time that caffeine was prepared from tea-dust. Certain items of scientific equipment were made at this time. Chemical balances were manufactured for the first time in India. To meet the requirements of the Army and the civilian population, surgical bandages were manufactured.

The year 1914 found England totally unprepared to face a global war. England's economy had been built up on the principle of *laissez faire*. The growth of her industries had taken a natural course. The great alkali industry of England rose to its pre-eminent position because all the raw materials were available within a short distance of each other. The salt was manufactured at Liverpool, limestone occurred in Derbyshire, coal was obtained from the Lancashire mines. Hence, the cost of manufacture was lowest and even Germany could not better it. Similarly, the great iron works of the Midlands owed their supremacy to this one cause. England had neglected to make herself self-sufficient as she never dreamt that her naval supremacy could be challenged and her supplies from overseas cut off. She used to import her nitrate requirements from Chile and hence no attempt was made to fix nitrogen either for use as fertilizers or raw materials for explosives. The result was that she found herself in queer straits soon after the declaration of the War. The President of the London Chemical Society invoked the help of all scientists of the British Empire to come to the rescue of the Empire. Acharya Ray had also received a letter and had responded by increasing the scope of the activity of the Bengal Chemical. We know how Weizman was able to solve the problem of supplies of acetone which was of utmost help. There was no synthetic dye-industry in England, nor was there a fine organic chemical industry. The war taught England a sound lesson and at its



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termination she decided to develop her industries at all costs. It is now a matter of history how the Safeguarding of Industries Act was passed by the British Parliament to protect the nascent industries of England. Under this Act whenever an article was manufactured for the first time in England, it automatically enjoyed protection from foreign competition because a duty representing the difference between the price of the imported article and the home-made product came into operation. The British Dye-stuff Corporation was established, but when it met with difficulties the great combine known as the Imperial Chemical Industries came into being. If England had not put her house in order then, she would certainly have been wiped off within a few months of the World War II.

Despite the valuable help India gave, no such tariff measures were adopted here William Jones had been prophetic in his remarks: Some sort of commissions were appointed to allay public clamour but results achieved were negligible. The Tariff Commission of Jinwala appointed in 1931 had no constructive suggestion to make. The industries based on sulphuric acid were enjoying a natural protection and they were able to hold their own during the post-war competition. Tata Iron & Steel Works, which rendered such valuable assistance during 1914-18, were also faced with a crisis. They, however, were able to get timely assistance to tide over the lean period. The paper industry, Titaghur Paper Mills and others, were also fortunate. But by and large the small industries which rendered so much help to the Government were left to fend for themselves as best they could. The lesson was not learnt yet.

Despite the apathy of the Government, the progress of the Bengal Chemical could not be halted. A new factory site was purchased at Panihati. This new additional factory has 133 bighas of land. The distillation of coal-tar was commenced in 1922 and the manufacture of alum on a very large scale started in 1924. The number of workers employed by the factory rose to 1400 by 1926. In 1908, the labour strength had been only 70. The paid-up capital in 1926 was Rs. 19 lakhs and the annual sale was over Rs. 25 lakhs. A new department for the manufacture of biological products was opened in 1929. Manufacture of glandular products, sera and vaccines were now undertaken. A modern sulphuric acid plant of the latest design was erected at Panihati in 1931. In 1934, the company started the manufacture of printing ink. Sir Prafulla Chandra Research Laboratory was opened in 1937. A new contact plant for sulphuric acid was erected in 1941. The World War II saw increased activity of the company. The company was called upon to supply all kinds of things which they were capable of making. Large orders for dressings were placed by the Government. Chloroform, ether, santonine, gallic acid, tannic acid, permanganate and dichromate were produced and supplied. Owing to a possible invasion of Calcutta, a skeleton factory was set up in the Punjab with Government help. A branch factory had already been opened in Bombay in 1934 which was converted into a full-fledged factory



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in 1938. A factory in Kanpur was set up in 1949. With the active help of the Government of India a plant for the manufacture of alum was secured from the U.S.A. The sales at the 50th anniversary of the company was Rs. 1 crore and 50 lakhs.

The foregoing brief summary of the activities of the company will show how far-sighted was Acharya Rāy. There is no doubt about the fact that the time when he thought of founding the concern, everything was against it. The journey to the present greatness of the company had not been smooth but every difficulty was overcome. In his later days when he used to visit different university centres in India, he would always meet the agents and dealers of the Bengal Chemical products. This helped a great deal in increasing the sales. He used to take note of complaints or suggestions, if any, and would pass these on to the persons concerned. Though of a feeble health in later life, he always had enough time to hear about every development of the firm and offer his advice. The Bengal Chemical will always remain a standing monument to his patriotism and will bear testimony to the faith he had in the ultimate economic regeneration of India. He did not live to see the changing pattern of India's economy. Had he lived in the post-independence period, he would have taken a deeper plunge into the unknown than many balance-sheet minded industrialists. To him, the Bengal Chemical was something more than a dividend-earning venture. It stood for him as a symbol of the growing self-respect of his people and of his confidence in the destiny of the country. On this point he stood firm; unfortunately he had to disagree with the management towards the end of his life. He was also associated with many other ventures, but, as he used to say, the Bengal Chemical was his "first love" in the industrial field.

THE CALCUTTA POTTERY WORKS

In 1901, a gentleman discovered a good deposit of china-clay at a place called Manglehat near Rajmahal in the Santhal Parganas. Maharaja Manindra Chandra Nundy of Cossimbazar, Baikuntha Nath Sen and Hemendra Nath Sen of Berhampore formed themselves into a private company and a pottery works was started as a humble enterprise. No pottery expert was available at that time. One Narain Chandra Banerji who knew something about pottery took charge of the venture. He constructed several furnaces but all failed. A sum of Rs. 27,000/- was spent on experiments. In 1906, Satya Sundar Deb, a student who had gone to Japan with a scholarship, returned after specializing in ceramics and was placed in charge of the factory. A site was secured on Tangra Road near Beliaghata station, and a proper factory was erected. Deb was again deputed to Japan to bring two workmen who were to train Indian workers. These persons arrived in 1909 and worked satisfactorily for a year after which they returned home. Business began to thrive well for a time, but with the influx of cheap Japanese and German articles, it was



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found impossible to compete successfully. Deb was again sent to Germany and England. On Deb's return production went on in full swing. From 1906 to 1916, the value of the produced goods was Rs. 2,02,952/- while the sale fetched only Rs. 1,92,927/-. The proprietors had by that time spent about Rs. three lakhs. In 1919, the business was converted into a limited liability concern under the name and style of Bengal Potteries Co. Ltd. with a capital of Rs. 10 lakhs. The company decided to erect new kilns, but they did not have enough working capital. Acharya Rây, who was one of its directors stood as guarantor in securing a loan from the Imperial Bank. The managing agents, P. N. Dutt & Co., became financially involved later and the agency was taken away from them. The directors grew nervous and appointed a committee to report on the working of the company. The report of the committee was to the effect that unless the cost of production was reduced the company had no chance to survive. The Maharaja of Cossimbazar and the two Sens held between them about 50% of the shares of the company. Deb, the expert, did everything he could but the dice was heavily loaded against him. An English gentleman, a Government servant, held about Rs. 80,000/- worth of shares. He had infinite faith in the ultimate success of the firm. On his retirement he voluntarily worked for 8-10 hours a day in looking after the business of the firm. Acharya Rây was most impressed by the selfless devotion of this English gentleman. After the death of Maharaja Nundy and Baikuntha Nath Sen, Durga Charan Banerji, an attorney, gave unstinted support to the firm by personally working for the firm in his spare time and also raising credit for the firm.

The firm changed hands and is now a growing concern. World War II gave a new impetus to the pottery industry in India, as all supplies were cut off from Europe, England and Japan.

BENGAL ENAMEL WORKS

This concern was started in 1921. A small factory in Narkeldanga was the first site of the venture. A great many difficulties beset the path of this concern in the beginning. The gentleman who was to take charge of the organization could not see his way to accept the terms and conditions, one of which was that he should train as many young science graduates as possible. He left the concern at a critical time. One of the directors, Dwijendra Nath Bhattacharya, a professor of English, threw himself heart and soul into the business. Despite lack of scientific training he made numerous experiments. Thanks to his labours, it was found possible to commence business from November, 1921. At the beginning, name-plates and house numbers only were made. Devendra Nath Bhattacharya, a brother of Dwijendra Nath and a pupil of Acharya Rây, was in Japan. Devendra Nath saw the enamel works in that country and secured equipment from there before returning home. The works was moved to Palta



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and a modern factory was born. The factory received visits from Government officers of the Contracts Directorate and was placed in the Government list of approved suppliers. Thus, in five years' time a new industry was well established. The company had, however, several difficulties, the principal being to get sufficient number of people to work in front of the furnaces. The purchase of iron sheet at a reasonable price was another difficulty. Tatas themselves were then passing through a lean time. The unlimited competition from abroad made the position precarious. At about the same time the British enamelled iron industry was given a protection under the Safeguarding of Industries Act. There was no such legislation for India. In England the original protective duty was levied by Lloyd George's Government in 1922 for two years. In 1924, with the lapse of the protective duty, foreign imports poured into England. In 1926, the Safeguarding Committee recommended the re-imposition of the duty and the Parliament readily gave a protection of 25% *ad valorem*. But who was there to listen to the wails of Indian industry?

Nemesis came in 1939. With the advent of the war a number of medical items such as urinals, kidney-shaped trays, etc., had to be procured. The nascent industry which had just been able to linger on, now got a stimulus. India not only met all her own needs both for the Army as well as for the civil population, but was able to supply the requirement of all the countries of the Eastern Group Supply Council.

The above concern is now one of the pioneer enamelled iron-ware producers in this country. A large number of other firms have also come into existence. The changed political situation after 1947 has made the future of this, as well as of other similar industries, quite safe.

MERCANTILE MARINE

It has been mentioned that India had a glorious tradition of ship-building and maritime activity. It was no wonder that the Swadeshi Movement saw the renewed efforts to revive this industry. Every attempt made to revive this activity met with powerful opposition from the British vested interests. Vast sums of money were being drained off the country in the form of freight on goods carried. The average freight to European ports from India is about 10% of the value of the cargo. In 1930, about 50 crores of rupees was paid by India for the transport of goods. The Scindia Steam Navigation Co. was engaged in coastal traffic in the beginning but, according to Walchand Hirachand, the foreign companies employed tonnage on these routes much in excess of the requirement of the trade, and the freight war they waged rendered it almost impossible for any Indian concern to survive. Jogendranath Ray of Bhagyakul was also engaged in this trade and suffered the same fate. Owing to the pressure of public opinion, a Mercantile Marine Committee was appointed by the Government. Jogendranath Ray, representing the East Bengal River Steamer Service Co., said in his evidence: "It was neither want of capital

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nor lack of efficient management that retarded the growth of his company, but the undue combination of European interests with the avowed object of crushing this enterprise. When this company was first started as a private concern, most of the jute mills used to accept goods on the small vessels of this company and to advance money on the bill of lading of goods shipped by the company's vessels. But after a few years, when the European interests found that the company was increasing its fleet and doing very good business, and similar other companies were being started by Indians, they made agreement with mills restraining them from accepting jute carried by steamers owned and managed by Indians."

The famous Coastal Reservation Bill was brought in. The rate-war begun by the European interests had already killed the Bengal Steam Navigation Company which was started in 1905 in the hey-day of the Swadeshi Movement. Bengal-Burma Steam Navigation Co., another non-European venture, also had to bear the full brunt of this rate war. Acharya Rây was connected with yet another inland steam navigation company. This company also had to face unfair competition. The British competitors reduced the fare, which was Re. 1/- from one terminus to another, to one anna. No one could stand such unfair trading. This company battled against heavy odds and lost nearly Rs. 2 lakhs. Some patriotic directors bore the loss from their own pockets and carried on the business. From 1905 to 1930, twenty Indian shipping companies with an aggregate capital of 10 crores failed because of the rate-war started by unscrupulous foreign companies.

The coastal reservation of shipping by Indian-owned concerns was ultimately adopted. Indian shipping could make little headway till Independence. Thanks to the incessant preaching of men like Acharya Rây, V. J. Patel, Walchand Hirachand and others, the consciousness, that simultaneously with the establishment of industries it would be essential to establish the shipping industry, grew in the country. Therefore, with the advent of Independence a considerable amount of thought was given to this problem. The present tonnage of Indian shipping is about 800,000 tons and by the end of the Third Plan period it is contemplated to raise it to 1.2 million tons. The great difficulty in raising the tonnage is that ships or their essential components have still to be purchased from abroad involving foreign exchange, which is required for other developmental projects. The cost of locally built ships is also too high. Moreover, with the high prices obtaining at the moment the capital cost is so high that it may not be quite economical to indulge in unlimited expansion as it may inflict grievous injury to the Indian economy. The present volume of India's export trade is Rs. 630 crores and the import trade is considerably higher. Therefore, the tonnage required to carry all cargoes in Indian ships is far greater than is possible for us to cater for at present. A period of consolidation, in which ship-building activity is raised to its full height, may be necessary. There has been a hue and cry to raise Indian



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tonnage still further in the Third Plan period, but the Government has wisely decided to hasten slowly.

CHUCKERVERTY, CHATTERJEE & Co.

In 1910, the new regulations of the Calcutta University were introduced. The first batch of students taking the Master's degree appeared in that year. H. K. Sen, B. B. Dey and P. Rây elected to follow a research career. In this batch were Ahindra Nath Chatterjee, Ramesh Chandra Chakravarti and Mukunda Lal Chakravarti. B. Maitra, who also belonged to this batch, took up an industrial career and was a co-founder of the Calcutta Chemical Co., which later on became another great Bengali venture. The two Chakravartis and Chatterjee were encouraged by Dr. Rây to start a publication and book-selling business. Acharya Rây was of the opinion that only a handful of his pupils should remain in the teaching profession and others should adopt whatever business career would suit them. His object was to persuade Bengali young men to adopt business careers, despite risks, so that the economic condition of the country could be improved. The business started by Chakravartis and Chatterjee did very well indeed. Acharya Rây used to entrust them with all his publications. Often he used to drop in to find out if there were any difficulties. Whenever his advice was sought it was readily forthcoming. Ramesh Chakravarti was of a religious bent of mind. After serving the company for a number of years he retired to lead a secluded life. When things were not going very well, he returned from his seclusion for a time. The concern is still thriving and has been able to justify the hopes Acharya Rây had about its future. Acharya Rây's *Life and Experiences of a Bengali Chemist* was published by this firm. The Acharya used to take pride that educated youth did take up a profession which up to that time was considered to be not "quite genteel."

INSURANCE

During the Swadeshi Movement and after, several Indian insurance companies were started. It was realized that the premium paid to foreign firms constituted a serious drain. The Swadeshi Movement was designed to stop the economic drain in all possible manner. In 1930, nearly 5 crores were paid to foreign companies in the way of premium. At that time there were 21 Indian companies of which only 3 were Bengali concerns. The economic drain of Bengal started by the British after Plassey had made the Bengalis cautious and they have ever since always tried to play for safety. Therefore, the Bengali was more insurance-minded than people from other parts of India. It was a well known fact that Bengal contributed most to the new business of insurance companies every year. Therefore, of the 5 crores of rupees paid to foreign companies as premium in 1930, the major portion was contributed from Bengal, making it suffer most. Consequently Acharya Rây turned his attention to giving support to Bengali insurance companies. S. C. Roy who was connected with Aryasthan



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Insurance Company came under the spell of Acharya Rây. His indirect contribution to the growth of the business of this concern was considerable.

After Independence, life insurance business has been nationalized. Additional amount of capital will thus be available to the Government for development projects.

BHARATI SCALES & ENGINEERING CO.

This concern was started by Ala Mohan Das, a person for whom Acharya Rây had many good words to say. The firm started to make weighing machines which till then had been the monopoly of foreign concerns. By praising this enterprise and holding up the proprietor of this company as an ideal to the Bengali youth, he did much to advance the cause of this firm. It grew in stature and expanded in several directions, and to Acharya Rây will belong much credit for the great publicity the firm received and which undoubtedly helped it to grow.

MISCELLANEOUS VENTURES

Acharya Rây was always willing to help any one who had undertaken an industrial venture. In this he made no discrimination. In many cases he did not even know the persons concerned. It cannot be denied that some people misused his name, but there were others who greatly profited by his support.

Nilratan Sarkar, a friend of Acharya Rây of youthful days and a great medical practitioner, was also imbued with the spirit of Swadeshi. He started the National Tannery Works and being Acharya Rây's friend used to consult him at every step. In various industrial ventures he spent an enormous fortune. At the time of his death Sarkar was in rather straitened circumstances. Had he devoted his whole attention to the practice of medicine, he would have been a very rich man as he was unequalled as a physician in his time.

Acharya Rây was also interested in soap making. In his autobiography he has analysed the difficulties of this industry at that time. There was no caustic soda manufactured at that time and we had to depend on imports. This industry was therefore vulnerable on account of the non-availability of this raw material from indigenous sources. In 1931, the Bengal Chemical came in the field of soap manufacture and faced the same difficulty. Therefore, Acharya Rây asked Professor P. N. Ghosh to experiment on the electrolytic production of caustic soda. As a result of these experiments, a cell for making caustic soda was established in the Bengal Chemical but the production was limited because of the difficulty about the diaphragms and electrodes. The advent of World War II made the import of these more difficult. During the latter part of the War, the Government secured



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four caustic soda production units for India from the U.S.A. Tatas had started on the production of soda ash during the War. The Alkali and Chemical Corporation had established a unit for caustic soda at Rishra, Considerable amounts of soda ash and caustic soda are now being manufactured, although still not in quantity sufficient to meet the entire demand of the country. Acharya Rây did not live to see the realization of another dream of his, namely, the establishment of this key industry.

CONCLUSION

The foregoing account gives a picture of Acharya Rây as a patriot who was deeply distressed at the poverty of the country. He tried to remove this by various means but the circumstances were all against him. Foreign domination, the vested British interests, and lack of legislative power of his countrymen were handicaps which acted adversely all the time against India. He was fond of quoting the following lines of Wordsworth which would show the way his mind worked :

There was a time when meadows, grove, and stream
The earth, and every common sight,
To me did seem
Apparelled in celestial light,
The glory and freshness of a dream.
It is not now as it has been of yore;—
Turn wheresoever I may,
By night or day,
The things which I have seen I now can see no more !
Whither is fled the visionary gleam?
Where is it now, the glory and the dream ?

The advent of Independence has given a new orientation to the development of Indian industry. His lament was that there was no machinery to protect nascent industries of the country. The Interim Government appointed a Tariff Board in 1946, under the chairmanship of Sammukham Chetty, to consider ways and means of giving protection to indigenous industries. The industries which had been developed during the War were free to make out a case for protection. Manufacture of several industrial chemicals, e.g., dichromate, thiosulphate, caustic soda, photographic chemicals, etc. came up for purview and in many cases adequate protection was granted. In some cases, the Board suggested how the industry could be saved. A case in point is the dichromate industry. The industry was developed during the War. At the end of the War the production reached 30,000 tons per annum. The peace-time consumption of India was barely 5000-6000 tons. India had about 28 factories producing this chemical. The cost of production varied from Rs. 56 to Rs. 105/- a hundredweight. During the War, in order to keep every factory in production the Government had introduced a pool price. Firms with lower cost of production used to contribute the difference to the pool which went to subsidize the manu-



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facturers whose cost was high. During peace-time such a procedure could not continue. Therefore, the Government made suggestions about the minimum economic unit, and for modernizing the manufacture. The world price was much below the average Indian price and it was thought that if the suggestions were accepted, it would be possible to produce it below world price and thus make its export a practicable proposition. Some of the firms adopted these suggestions and fared well.

The need for a strong organization of the chemical manufacturers was felt in 1938. Acharya Rây was elected the first Chairman of the newly formed Indian Chemical Manufacturers' Association. During the first year of its existence, the Association got a standing with the Government. Acharya Rây was elected for a second term. Since then, the Association has gone from strength to strength. In Europe such trade organizations exert profound influence on the policy of the Government of the day. In India we had no such organized body—a fact which Acharya Rây always lamented. He had also realized that an alien Government would not pay much heed to the voice of public opinion, but still it was necessary to make known all the troubles of the industry. After the attainment of Independence, this body should exert considerable influence on the Parliament but it is necessary to find selfless leaders like the first Chairman.

On the withdrawal of the British, India found that she had a sterling balance of 1300 million pounds. This was much more than the drain after Plassey. With such an asset India started on her journey of self-rule. No nation had such a great start. The economic drain of two centuries had made the country anaemic. Therefore, there was great rush to modernize her. The Planning Commission was set up and one of Acharya Rây's favourite pupils, J. C. Ghosh, was made a member. Great dams have been built, production of electric power stepped up, and fertilizer factories erected. With the help of foreign collaboration, a great many chemical and engineering industries have been established. Even dye-stuffs are being manufactured now. All these would have filled the heart of Acharya Rây with joy and hope for the future when the "meadows and stream" would have again been clothed in the "celestial light" of his dream. But it was not yet to be and he passed away just before the new dawn. He was, however, able to scan the glimpses of its twilight.

Now that all the brakes have been released the country will speed on to progress, but there is need to keep a firm grip on the steering-wheel so that she may not run off the track. Acharya Rây was a visionary, yet he had a strong sense of proportion. The country sadly misses him today; for, with him to guide, there was little chance of her straying away from the course.

V

PRAFULLA CHANDRA AND HIS PUBLIC ACTIVITIES

INTRODUCTION

It cannot be maintained that Acharya Prafulla Chandra Rây, the man who more than anybody else devoted himself to the promotion of the study of chemistry both by personal example and by encouragement, isolated himself from the life around him and immersed himself in his books and in his laboratory experiments. Time and again he himself warned young men against such an attitude to life.

THE BACKGROUND

After the sepoy mutiny our people became more and more interested in public activities. Mobilization of public opinion on matters of social and political reform proceeded with the spread of education, communication and journalism. The establishment of Ramakrishna Mission, and the courage and devotion shown by Swami Vivekananda and co-workers during an epidemic of plague at Calcutta had shown the way. In the days of the Swadeshi Movement, directly traceable to the partition of Bengal, there was the awakening of the spirit of national service. Such a spirit was very much in evidence when the Damodar was in one of its most destructive moods in Hooghly and Burdwan in 1912; bands of Bengali young men enrolled themselves as volunteers and gave a good account of themselves in relief operations undertaken by them. This was the background of the stage, where we find Prafulla Chandra working for public good in his own way. His early life precluded the possibility of an ivory tower in his case. The young boy had fallen under the influence of the Brahmo Samaj, when Keshab Chandra's appeal for social reform was fresh and strong. Prafulla Chandra was a student of the Albert School and his contact with the teachers there strengthened his natural inclination to serve the society in which he was born. So it was that when the time came he exposed the defects of society and helped it also with constructive criticism, condemned casteism in no uncertain terms, and came forward to gather and train volunteers to help the people in flood and famine.



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THE EARLY LIFE

One may begin with young Prafulla Chandra, writing an essay on "India before and after the mutiny" for which he joined the list of competitors for a prize essay in 1885 in the Edinburgh University. He had prepared the essay and he discovered the fact that the pen was a very suitable medium for expressing himself. His words are: "I discovered to my infinite amusement and delight that I could wield the pen with a degree of facility, at least with as much facility as I could handle the test-tube." He had still faith in the British people and he appealed to them in that essay to put an end to the existing un-English regime. The essay was printed and published in 1886. This confidence in his own power as a writer was the result of his studies prompted by the subject matter of the essay, and the spirit of competition. It brought him to the notice of English politicians like John Bright. The champion for India, as Dr. Rây was later to be, was still in the process of making.

THE COLOUR LINE

He found in his own case that the colour line in the Indian educational and scientific departments was a serious obstacle to overcome and he himself suffered on that score, being denied the status and its concomitant opportunities. Indians were actually excluded from the superior service. The case of J. C. Bose, by three years his senior, was a pointer. There were two distinct services, one the Imperial and the other Provincial. It was, however, not a matter on which he could speak on the public platform, distressing as it was. He went on with his work on pharmaceutical preparations, sulphuric acid manufacture, studies on Hindu chemistry, at the same time that he tried to hammer into the head of other people the injustice of the situation. A pamphlet was published on the subject of the colour line in the Indian educational and scientific departments, by the editor of the *Modern Review* in which instances were given of eminent Indians who had made their mark but would not be admitted to the higher grade of the Education Department. J. C. Bose, P. C. Rây, Ganesh Prasad and Manoharlal would not attain to their height in their own Provinces, although British graduates, mostly of mediocre ability were appointed to the Imperial Educational Service as soon as they had passed out of the university. Questions like these were mooted in learned societies and science associations, while outside the Education Department in the bigger field of Indian politics there was a ferment which must have called for Dr. Rây's earnest attention. Such was, for example, the Swadeshi Movement of Bengal. Such was also the field of underground activities of men like Kanailal who went to prison and even courted death. Dr. Rây, it was said, had referred to the incident half in jest and half in earnest, stating that salvation has come from a boy of the weaver caste. He had, however, not joined any political party nor did he appear on the public platform on any political question. The time had not yet come. He had



all along maintained his connexion with his own village and his own district, and it was the Khulna famine of 1921 which first brought him to the field of organized public relief prominently. He had been all along studying the economic conditions of the Bengal districts, Bankura, Faridpur and Rangpur among others, and realizing the dreariness of the situation on the economic plane. This recalls the interest which he had found in writing his prize essay in Edinburgh in 1885. When the Khulna famine broke out, he had to come out in the open.

FAMINE

Famine had broken out in the southern portion of Khulna in 1921, owing to failure of crops for two successive seasons. Dr. Rây did not at once realize the seriousness of the situation in its magnitude which was brought home to him only when he visited his native village, as was his usual practice, during the summer vacation in May. The distress was so acute that even parents would deprive their children of their slender quota of milk, to enable them to buy a small quantity of rice! But even that was not possible as there were no buyers of milk. There was a local agitation and the people, when they found that the Government would not budge an inch to extend to them even the routine benefits that were within its power, tried to organize themselves for helping the distressed as far as they could. Dr. Rây was induced by his friends to come forward and lead the organization. A public appeal was issued and a band of volunteers mainly from the districts of Barisal and Faridpur was enrolled. The Khulna leaders, specially Nagendranath Sen, Jyotish Chandra Ghosh and Kunjalal Ghosh, rallied round Dr. Rây and the relief work was widely appreciated.

FLOOD

The very next year there was a heavy flood in North Bengal. Hardly had a year elapsed, when he was called upon to play a leading part in the matter of the flood which affected North Bengal when the Atrai overflowed its banks and disrupted the communications between the Central Bengal and the North.* Netaji Subhas Chandra Bose who had by then returned from England after resigning the I.C.S. and begun his career as a whole-time national worker, had already gone to the area to survey the situation, and, when he had found out the dimensions of the calamity, he wired to Dr. Rây, and also to the Bengal Congress and the Bengal Youngmen's Association. In a public meeting convened at the hall of the Indian Association on receipt of the alarming news, a relief committee was formed and Acharya Rây was elected its president. The districts of Bogra, Rajshahi, and Pabna were all affected, and the total loss was estimated at six crores of rupees. The building of the University College of Science housed the office of the committee. Crowds of men and women were constantly coming in or going out and as many as seventy volunteers had to work



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there regularly from morning till midnight. The general office was there as well as the treasurer's. In one corner donations in cash as well as in kind were received, in another there was the despatch department, in a third was the arrangement for keeping the stores. The Bengal Relief Committee asked members from different organizations to help in co-ordinating their activities. An efficient system was devised under which all these organizations worked for the same end with perfect understanding among one another. Students and teachers of the University College of Science also enrolled themselves as volunteers. So great was their enthusiasm that the people of Bengal in one month contributed three lakhs of rupees to the funds of the Committee.

UNEMPLOYMENT

Dr. Rây contemplated the economic condition of India not merely through text-books but also through facts collected by him (for he had kept up his interest in the study of the economic condition of the country), and wanted our young men, specially those educated in colleges, to go forward in business and industry. What was it that prevented them from making a headway in these lines? This pitiable condition of educated unemployed was not confined to India only. Dr. Rây had quoted the following remarks of Carnegie: "Unless the young University man employs his time to the very best advantage in acquiring knowledge, the pursuit of which he is to make the chief business of his life, he will enter business at a disadvantage with younger men who enter in their teens although lacking in university education." He realized the serious problem which confronted the Bengali young man. The Bengali has to depend on the non-Bengali for the sale of the very produce of his land: jute, grain, oilseeds, etc. Success in industry requires not only scientific and technical knowledge but also business acumen of a high order, which was yet to be developed. For him there is difficulty in finding large capital for initial expenses. There were graduates and diploma-holders in any number from the universities and technical schools. Where will they go and find outlets of activity? This was an acute problem no doubt, growing more and more acute with the passage of time. Dr. Rây gave a fillip to the spirit of enterprise wherever he found it in his students or elsewhere. He was himself intimately connected with some of the enterprises, Calcutta Pottery Works and Bengal Enamel Works, for example. Inspired by his exhortations and at his instance a firm of book-sellers was started by three of his M.Sc.-passed students. He pointed out how the lack of the instinct for trade turned Bengalis educated in schools and colleges towards an office job. The educated young men failed to realize the dignity of labour which enabled ordinary labourers not only to support themselves but send regular remittances to their homes outside Bengal. One crore of rupees per year, he had pointed out in his *Life and Experiences of a Bengali Chemist*, went out from Bengal to one district alone in Bihar, Saran. This did not take into account the remittance which went out without the



aid of the post-office. He calculated that there were at least six lakhs of non-Bengalis, all employed in the mills of Calcutta and its dockyard, and if they were credited with earning more than Rs. 10/- per month over and above their food and lodging expenses, then on this head alone 7.20 crores of rupees were going out of Calcutta every year. He turned round to our schools and colleges and asked a pertinent question : How many of them were taking to agriculture in a country, which was predominantly agricultural in its economy? He praised without stint wherever he found attempts being made to foster the spirit of self-help. The organization put up by Chandranath Basu of Gopalganj, as well as the activity of a certain District Magistrate of Faridpur, received his warm encomium. Of the few Government officers, who were genuinely prompted by the spirit of service and who received his praise in his public speeches, one notable example was Devendranath Mitra of the Agriculture Department.

THE CHARKHA.

What was Prafulla Chandra's attitude to the spinning-wheel? While opening the Indian National Swadeshi Exhibition at Poona in 1931, he had said : "I need scarcely remind you that ever since my college days at Edinburgh in the early eighties of the last century, I have been a devoted student of western science and even now, with the burden of three scores and ten years on my shoulders, my most precious time is spent in the laboratory of my College of Science. And I have tried my best to divert my favourite science to its practical application. In fact, I am here also as an exhibitor of a certain description of chemical products manufactured by our firm. When Mahatmaji, in 1921, first made the *charkha* the symbol of the new movement, I myself as a staunch believer in mechanization laughed at his efforts to rehabilitate this 'relic of medievalism'. But soon in connection with the famine and flood relief operations in my province which I felt called upon to undertake in some of the affected parts of Bengal, I felt the supreme need of secondary occupations for the teeming millions of India during the non-crop seasons."

His experience during the organization of relief in connexion with the Khulna famine and North Bengal floods was an eloquent testimony in favour of the spinning-wheel. He had heard arguments against it : that it was at best a utopian idea; the vision of India being studded with smug, self-contained villages was never to be realized in these days of steam-driven, electricity-driven, petrol-driven machineries and giant ocean-liners and railway trains, etc. etc. Why did Acharya Ray advocate the cause of the *charkha* even then? In his message on Khaddar, while opening the Khadi Exhibition at Cocanada in 1923, he declared : "I am not likely to suffer from a particularly virulent type of anti-machinery obsession, or anti-western bias. I have visited Europe four times, and have lived altogether eight years in England. And in a



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manner it has been my privilege to be instrumental in introducing in Bengal at least one aspect of western civilization. Closely upon a century ago, the great German chemist Liebig laid down that the index of civilization of a country is the amount of soap it consumed and he further asserted that the industrial progress of a country was measured by the output of its sulphuric acid. And it so happens that I am intimately connected with several concerns—one of which manufactures soaps in large quantities and which I trust invites comparison with imported stuffs—and another, the Bengal Chemical and Pharmaceutical Works, Ltd., bids fair to be the biggest producer in India of sulphuric acid and its accessory products." In spite of all these, if he pleaded for the *charkha* and the handloom as the means of economic salvation for the people of India, he did so with his eyes wide open and with full consciousness of the capacity of modern machinery.

His reading of history showed him that three quarters of a century before the birth of Mahatma Gandhi, H. T. Colebrooke had pleaded hard for the *charkha*. Colebrooke was chiefly instrumental in introducing Vedanta philosophy to the western world; it was he who first gave a masterly exposition of the six systems of Hindu philosophy and vindicated the priority of the Hindus in arithmetic and algebra. But he was not a mere orientalist; he was also an administrator and in his booklet *Husbandry of Bengal*, published about 1800 A.D. he pleaded before the British Government to encourage spinning for the relief of the poorest in India, which would supply commercial advantages to England also. Acharya Rây had also studied R. C. Dutt's *Economic History of India* and it told him the same story. He distinguished between the Swadeshi Movement and the Gandhi Movement with reference to the *charkha*. In the days of the former we threatened to go back to the *charkha*, to be satisfied with coarse gunny, rather than buy foreign cloth. In the end, however, we relied on the mills of Bombay and Ahmedabad. But Gandhiji's *charkha*, he maintained, was essentially a different proposition. The former was purely for the purpose of threat to get political rights, the latter was based on love, "love for those who will wield the tool and also for those against whom the tool will be utilized." Dr. Rây's further comments were: "Gandhiji holds before them (Britishers) the example of India of his imagination, the India of his idealism and asks the world to look at her and benefit by it. He asks the militant world to live and let live."¹ This was how Dr. Rây understood and interpreted Gandhi Movement as essentially different from the Swadeshi Movement of 1906.

No wonder that he was the sage of the spinning-wheel—the epithet of *charṇarshi* which Acharya Brajendranath Seal playfully bestowed upon him suited him perfectly. Not khadi on a commercial scale, not in com-

¹ *Gospel of Swadeshi*: Address at the opening ceremony of the Lahore Exhibition, 1929.



petition against mills, not as a purchasable commodity, but as an essentially domestic programme khadi was to be worked—worked in every household, out of cotton grown in the cottage compound, and the yarn woven by the family or by the neighbouring village weavers—so that there would be no question about any sales organization, etc.

What was the national income in those days? Lord Curzon had stated that Indians, enjoying 'prosperity' under British rule, had the magnificent income of Rs. 30/- per head per annum—that meant about an anna and a quarter per day! A professional spinner working eight hours a day would earn double the amount. In its turn the spinning-wheel would revive other simpler industries in the village to find work for the weaver, the dyer, the carpenter, etc. Acharya Rây believed that the universal adoption of *charkha* was not ruled out and that it would result in stopping the annual drain of 60 to 70 crores of rupees on the score of piece-goods alone.

Apart from the earning potentiality of the spinning-wheel Acharya Rây was satisfied with the distribution of the money it earned. To quote his words from the address above referred to: "The problem of distribution is not a whit less important than the problem of production. What do we gain if the millions of our countrymen starve while the few fortunate mill-owners fatten on their unnatural gains? Only inequality in wealth will be created; the spectre of hunger and unemployment will stare us in the face in an uglier form; and a class-war, of dimensions the most appalling, will inevitably ensue, adding another most complex element to our already sufficiently complex problem. I need not be understood as saying by this that all big-scale industries are to be smashed—the thing cannot be disposed of so airily—and I could not even if I would. But surely you will agree with me that if the same result can be brought about by means much the less harmful, surely that were preferable. This work of distribution is, as I said, done almost automatically by the adoption of the *charkha*.....

"An easy, healthy and natural process of increasing the wealth of the country, and a smooth and automatic way of universalizing the incidence of that wealth—that is what the *charkha* represents. And it is not, to tell the truth, a new and untried system invented by quacks for the cure of our economic distemper. The spinning-wheel is not an innovation in India, it is, on the contrary, perhaps the longest standing industry, next to agriculture in India's history."

We have given so much detail about Acharya Rây's argument on behalf of the spinning-wheel, because the position might seem anomalous to many people at this time of the day. A scientist with modern outlook did not differ from the protagonist of the spinning-wheel, whom many people had dubbed 'medieval,' in almost all the details at least on this



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particular item. Even when there was a temporary lull in khadi production due to the council-entry question, Prafulla Chandra said in reference to this diversion of the public mind, which must have seemed to him unwarranted: "Deep anguish creeps on my soul when I find that our former, age-long inertia and listlessness are invading us again." Bitter was his soul against those whom he called sensationalists and political dramatists, not because they were what they were—they had no doubt their useful role to play in the "vitalization of the popular enthusiasm"—but the fact that *charkha* and khaddar and national schools and untouchability and arbitration and village organization—all of which was known as constructive work was relegated to the background, or at most mentioned in mock reverence, touched him to the quick.

ANOTHER FLOOD.

The flood which visited North Bengal owing to the overflow of the Atrai was followed about eight years later in 1931, by another flood which wrought havoc over a considerable portion of North and East Bengal. The whole of the Brahmaputra basin was covered by this terrible flood. The population affected was not less than two millions. Meghnad Saha who had taken an active part in the relief work in 1922 estimated the total loss this time in money as somewhere between eight and ten crores of rupees, and even then feared it might be an underestimate. Acharya Rây was again called upon to organize relief and this time the organization bore a new name. There was sympathy all around, and Acharya Rây had his office of the Sankat Tran Samiti, as in the past, in the premises of the Science College. Bands of volunteers poured in chiefly from Contai and Tamluk. Acharya Rây recorded his appreciation of the services of Satish Chandra Das Gupta, Kshitish Chandra Das Gupta, and Panchanan Bose, who had also helped him in the days of the Bengal Relief Committee, and visited the localities affected by the flood before organizing the various steps necessary for relief. India learnt a precious lesson from such terrible calamities, she learnt to stand the rude shocks as one nation. Though no sympathy and remedial measures were forthcoming from the Government, India learnt the lesson of self-help, of calling forth aid from her own people, so that these calamities set her one step forward on the path of nationhood.

SOCIAL WORK.

We have recounted a few items of public activities of Prafulla Chandra Rây, but he did not confine himself only to the particular channels mentioned above. Khadi was one, spread of education was another, removal of inertia regarding the continuance of antiquated customs was the third. But wherever he found the hydra-headed social evil, he did not hesitate to strike it on its head. In one of his public speeches he pointed out the increasing evil of gambling, share speculation, and racing which had invaded even the family life of our country. He condemned the insincerity which



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prompted our people to sign anti-dowry pledges and at the same time extort money for their sons' marriages from parties which were compelled to pay. One could not exist in the world simply by looking on while things like these happened. He remembered the achievements of ancient Hindus in chemistry and his heart was filled with pride. That was why he was so bitter against the indolence of modern Hindus in general and of Bengalis in particular. He warned us against the policy of blind imitation so far as western civilization was concerned. Certainly, he was not against amenities and comforts which applied science has made possible in our days. But Indian civilization also was certainly not of a low standard. Only it had to be assessed correctly.

Long before Gandhiji, Prafulla Chandra had been speaking against what may be called "don't touchism." He spoke frequently in the Brahmo Samaj Hall, Bhowanipore, on the iniquity of the caste-system. Generally there were in those days some young admirers who would take down notes of these lectures and later on after his revision get them printed in the monthly magazines. Kalinganath Ghosh, now headmaster of a school in Jalpaiguri, had been of help in this manner, and there are articles published under the joint names of Acharya Rây and Kalinganath Ghosh in Bengali periodicals. Ratanmani Chatterji, the well-known public worker, was another such help; and there is a number of post cards written by the Acharya to him in his characteristic style, asking him to attend his lectures on certain dates and take down the notes carefully; sometimes there is a note of appreciation of service so rendered.

It will not be amiss here to refer to the presidential address of Acharya Rây at the Utkal Provincial Conference in 1924, where he said :

"All the social evils we suffer from must be removed. The course of untouchability more than anything else stands in the way of our nation-building . . . We must draw into our bosom the so-called depressed classes and make them feel that we are at one with them. Hinduism in the old days was liberal and tolerant and never failed to assimilate new ideas and sea-voyage was never prohibited. The disruptive tendencies and elements of orthodox Hinduism must be eliminated. The temple of Jagannath knows no distinction of caste. May I enquire if the whole of India is not included within the jurisdiction of Jagannath, the Lord of the Universe? Why should a cordon be drawn round the temple? The doctrine which the prophet of Nadia preached knows no distinction of race, caste and creed. We must assimilate new ideas and march with the times."

Dr. Rây was the Chairman of the Reception Committee of the Hindu Mahasabha at its eighth session at Calcutta, and in his address he wanted to express the liberal ideas pent up in his mind and which he wanted to share with his audience. His scientific mind rejected the idea of maintaining *status quo* or the established order of things. He reminded his hearers



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that the Hindu society was not the monopoly of any particular race, for, in it the Aryan, the Dravidian, the Scythian, and the Mongolian races and their various combinations have each its own place. The science of ethnology lays bare many facts and reveals the odd mixture of all their features in even a so-called high caste Brahmin. He was not satisfied even with the idea of removal of untouchability: "this reform does not go far enough." He would remove the barriers of caste altogether and would counsel the Hindu Mahasabha to take back to the society "those unfortunate women who, for no fault of their own, were victims of diabolic crimes."

It was not always in this patient vein that he spoke. Sometimes his indignation would burst out. In his presidential address at the thirty-first session of the Indian National Social Conference on December 30, 1917 he turned to the audience and said: "Is it fair, is it just, is it in the best interests of our country that a handful of privileged men should continue to monopolize all the advantages accruing to them through their birth and drive the submerged teeming millions to hostile camps and compel them to live in a state of armed neutrality? A house divided against itself cannot stand. The backward classes are flesh of our flesh and bone of our bone and it is the bounden duty of our men of light and leading to extend to them the right hand of fellowship and lift them up from the quagmire of degradation and despondency. We cannot afford any longer to have in our social frame-work a microscopic minority of Spartans lording it over the *helots*. The loss to the country from the intellectual stagnation of the overwhelming majority of her people is simply incalculable. We are loud in claiming political equality with our British fellow subjects, but when it comes to yielding an inch of ground to our own countrymen we fight shy of it and cry, help! murder!"

He was specifically opposed to casteism, specially its acute form of "don't touchism" on which he delivered lectures at the Calcutta University Institute and elsewhere. The social evil practices which obtained currency were mostly contrary to the Vedic institution, where there was no such enormity as discounting beef-eating or, as recommending "don't touchism" in matters of food. He repeatedly quoted Swami Vivekananda's condemnation of the evil which had relegated religion to the kitchen. His study of anthropology had told him that our so-called 'sacred origin' had no basis in fact. There had been so many intermixtures of races and castes. Again, throughout the ages there had been saints born among the so-called lower classes of people. Jesus himself was born in a carpenter's family, Kabir in a weaver's, Ruhidas and other saints in the middle ages had their origins in the 'lower' strata of society. Even Swami Vivekananda was not born in a Brahmin family. Those sages to whom Hindus pay homage as *devarshi* and *maharshi* were born in families about which there should be no illusion. This is not confined to India but it is universal. Therefore Acharya Rây appealed to the people; why should there be any



contempt on the score of birth and origin and caste? Why should it be considered sinful to look at a person and do the penance provided for in the *shastras* in case we tread upon the shadow of certain persons belonging to particular classes? If India has to take her place in the world, she must set her house in order. Our great men have been bearing the message of ancient India to distant shores. They cannot command the respect which should be naturally shown to them unless they can assert that untouchability has been banished from India. After all, the country belongs not to the higher classes but rather to the lower. The so-called higher classes constitute about seven per cent of the total population. The cooks and servants employed in Hindu houses can seldom prove their *bonafides* regarding caste.

Not only caste system, there are other obstacles to the growth of a nation, both internal and external. This was one of his favourite topics. Ignorance was one of the major evils which had to be removed. Women's education had to be placed on a par with men's education. He criticized even the National Council of Education, born during the Swadeshi days or the period of re-awakening of Bengal, for its lack of emphasis on women's education. He praised the large-hearted donors but regretted that they had forgotten this important item in the programme of national reconstruction; no funds were earmarked for women's education.

POLITICAL

Acharya Prafulla Chandra did not actually enter the arena of politics but he was a nationalist to the core, and from the day when he entered school to the very end his love for the nation was the most prominent trait in his character. His prize essay in the Edinburgh University, his attempts at industrialization and solution of the unemployment problem, specially of the educated unemployed, his public speeches and writings on social reform, even his laboratory work turned round on the pivot of nationalism. Technically speaking, he was a constructive worker, to quote a Gandhian phrase. Constructive work either in connexion with his own science and its application to industry or in relation to the removal of economic distress always engrossed his chief attention.¹

In his presidential address at the Rural Welfare Session of the first Social Service Conference held under the joint auspices of the International Social Service League and International Federation of Women, he had said :

"You are probably aware that the promotion of cottage industry, propagation of Khadi, and the removal of untouchability, are subjects dear to my heart, so great an importance is attached to these nation-building

¹ *Life and Experiences of a Bengali Chemist*, p. 227.



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activities that even what has been called rightly the greatest political organization of the country—I mean of course the Indian National Congress—has, even in the midst of the present political chaos obtaining in the country, laid the great emphasis possible on these items. Our revered leader Mahatmaji places them in the vanguard of our national programme: and the urgent necessity of an expeditious achievement of these objects is felt by all who have the interests of the country at their heart. . . . While there might be an honest difference of opinion as regards the political result of these constructive activities, there has been a more or less unanimity of opinion on the supreme value of these items in any worth the name scheme of moral reconstruction in this country.” Khadi, anti-untouchability, attention to cottage industries, mass education, women’s education,—in all these items of constructive work he was a leader and he stood side by side with Mahatma Gandhi and Rabindranath Tagore. No doubt his heart yearned for the oppressed and the down-trodden. The Jalianwala Bagh affair had struck the same chord in him as in the case of Rabindranath. In the anti-Rowlatt-Bill meeting at the Town Hall, Calcutta, where he happened to be present, on being induced to go there by his companion Satyananda Bose on his way to the Maidan, he was requested by Deshabandhu Chittaranjan, who was the principal speaker, to address the meeting. When Acharya Rây rose to speak, he was received with deafening cheers. But he always put a brake on his utterances and activities. This might perhaps be traced to long years of service discipline under the Government and also to his planned way of life under the possible influence of that of Benjamin Franklin. “I never considered that I was equipped by temperament and nature for playing the role of a politician. One whose best period in life has been mainly divided between the laboratory and the study finds it too great a taxation upon his time and energy to go about this vast country or rather continent and address meetings. The very physical strain it entails would render me *hors de combat* in no time. In fact, my fragile constitution and physique as also advancing age forbid my entering the political arena.”¹ But he was fearless in his criticism, and when Deshabandhu Chittaranjan was arrested, he came out and wrote a letter to Basanti Devi offering her his sympathy. A little on the defensive, he wrote: “Possibly, exclusive, life-long devotion to my favourite subject has blurred my vision and my spirit has become circumscribed. I can assure you, however, dear sister, that in serving my favourite science, I have only one idea in my mind, namely, that through her I should serve my country.”² His homage to Kanailal after his daring deed in Alipore Jail in connexion with the Alipore bomb case, earlier in his career, should not be forgotten. The flood and famine brought him in close touch with national workers. In days of the Salt Satyagraha and civil disobedience campaign his presence in the headquarters of the workers encouraged and cheered them up, and they wistfully looked to him for

¹ *Life and Experiences of a Bengali Chemist*, p. 227.

² *Ibid.*, p. 293.



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leadership. Prafulla Chandra had certainly no inhibitions in politics. He was a full-blooded man, and he did more than a specialist's job, representing India at its best. •

Though agreeing with Mahatma Gandhi, for whom he had warm-hearted admiration, in his constructive work, he did not agree on the Khilafat question and when delivering his convocation address to the Jamia Millia Islamia, Aligarh, he made no secret of his views on the subject, and they are worth reproducing and remembering at this time of the day. He said: "I am certainly not impervious to the grandeur of the Pan-Islamic movement as one of the most promising portents of the awakening of Asia, nor to the sublimity of the spiritual call of the Khalifa upon the rank and file of the faithful in all parts of the world, but these demands must be all viewed in their proper perspective and must not be allowed to drown the clarion call of Mother India herself to her sons for achieving an independent, sovereign, national life. We must not allow our loyalty to the mother country to be swamped by the wave of extra-territorial patriotism. India must not be a spoke in the Khilafat wheel gyrated from Istanbul. The Swaraj of India must be our one all compelling goal, and everything else must be kept in its place."

One thing may be pointed out here. Acharya Rāy had always disliked the word boycott—which implied a determination not to use goods manufactured by a foreigner, so that he might suffer financially. By bringing pressure to bear upon his pocket he may be brought to his senses and made to grant concessions. "Boycott" is thus for a specific object and the object being gained its *raison d'être* ceases and it is called off, whereas "Swadeshism" is based upon pure love of one's country-made products. "I am Swadeshi," he said, "and Swadeshi is my religion and it has been my life-long end to manufacture those articles which I have to import from foreign lands. Political consideration does not sway one." •

No account of this side of his activity can be considered as complete without taking into consideration the following statement made by him in his *Life and Experiences of a Bengali Chemist* (p. 228):

"I made frequent tours (1921-26) throughout the length and breadth of our land preaching the need of supporting the National Schools which had sprung up and also the *khaddar* and of removing that great curse of Hinduism—*untouchability*. I had also to respond to several invitations to preside over the district conferences at Khulna, Dinajpur, Cuttack, etc., as almost all the prominent political leaders were then lodged in jail. During the height of the non-cooperation movement I declared—Science can afford to wait but Swaraj cannot. This assertion scarcely needs elaboration."

VI

PRAFULLA CHANDRA AND THE BRAHMO SAMAJ

EARLEY IDEAS

Acharya Prafulla Chandra Rây has, in his reminiscences, described his connexion with the Brahmo Samaj. He was attracted to it early in life. He has used the words "unconsciously drawn towards the Brahmo Samaj". It was partly due to hereditary influence. His father was a liberal Hindu. While outwardly conforming to the current Hindu faith, he was an admirer of the Samaj and of the *Tattwa Bodhini Patrika*, organ of the Adi Brahmo Samaj, started by Maharshi Devendranath Tagore, and the volumes of the *Patrika* adorned the shelves of his library. Prafulla Chandra in his boyhood was a constant reader of these as well as of the writings of Keshab Chandra Sen, Rajnarain Bose, Ayodhyanath Pakrasi, Akshay Kumar Dutta, and others like them who waged war upon the conservative ideas of the people and served as agencies for preparing the ground for a silent social revolution. He was a voracious reader not only of such writings in Bengali, but also of selected extracts in English from the writings of men like Francis William Newman and the correspondence between Cobb and Rajnarain Bose, as they were published in the *Tattwa Bodhini Patrika*, and they appealed to him. It was this organ also which induced him to go in for a good deal of reading which set his mind against "revealed religion". He became acquainted with the results of the German school of biblical criticism as represented by Strauss, whose *Life of Christ the Man*, without the accretions of miracles of supernaturalism, was popular with the early leaders of the Samaj. Similar was the case with regard to Renan's *Life of Jesus*. This side of Prafulla Chandra's readings grew in course of years and strengthened his disbelief of faith in revelations. In this he was in line with the men of science in India and Europe, who on being acquainted with the discoveries of science found that the geological age of the earth did not support the Mosaic chronology.

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So far with regard to doctrines. No doubt he derived much support in this respect from the writers of the Brahmo Samaj whose books supplied him with the necessary materials and criticism. There was another strain in his thought, how to remedy social evils of his days—the evils of caste

system, of enforced widowhood, of child marriage. These further alienated him from the orthodox Hindu society. It was this social aspect of the Brahmo Samaj that had a special appeal for him. His father often expressed the wish that at least one of his sons should marry a widow and we are told that he often singled out Prafulla Chandra for this purpose.

THE INFLUENCE OF HIS TEACHERS

"Prafulla Chandra came to Calcutta in 1870 for his education, and though he had first enrolled himself as a student of the Hare School, a severe attack of dysentery interrupted his studies, and he took admission in 1874 in the third class of the Albert School. There he came under the direct influence of the Brahmo Samaj. This institution was founded by Keshab Chandra Sen and his brother Krishna Behari Sen was its rector. The teachers were members of the Brahmo Samaj. The Adi Samaj founded by Maharshi Devendranath had not disowned the caste system in the beginning, but Keshab Chandra started a movement for its eradication, and the Sadharan Brahmo Samaj disowned it altogether. The usual consequences followed. Keshab Chandra and his young friends had to undergo social persecutions and excommunications. There were many cases in which promising young men after their brilliant career had to suffer social boycott and had to leave the paternal roof to shift for themselves. They had to undergo privations, but cheerfully bore everything in order to create a new society. The teachers of the Albert School were recruited from such men, and the enthusiasm that they evoked must have touched the young Prafulla Chandra. In his *Life and Experiences*, Prafulla Chandra has described what he owed to his teachers and how he imbibed their faith in the natural course of events. "Our teachers were models of gentleness and suavity. Aditya Kumar Chatterji was a personification of all the noble qualities that contribute to the making of an ideal teacher. I see him before my eyes with smiles playing on his lips and a benign influence radiating from his countenance. Equally beloved was Mahendranath Dan. Both of them had joined the Brahmo Samaj braving cheerfully social excommunication. Myself and one or two of my fellow-students used often to visit them at their lodgings and we had conversations on all manner of subjects without reserve or restraint. The tenets of the Brahmo Samaj were explained to us—how it differed from other forms of faith in that it was not based upon revelation, but had to draw more or less on rationalism and intuition (for the first time in my life I tried to grasp the meaning of the word intuition). I unconsciously felt what personal contact with an ideal teacher meant..... Looking half a century back I recollect with grateful feelings the obligations I am under to my Albert School teachers and the cordial and happy relations in which I stood with them."

INFLUENCE OF KESHAB CHANDRA

Along with many other young people of the time, Prafulla Chandra

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fell under the spell of Keshab Chandra Sen. On his return from England in 1871 Keshab Chandra started the *Sulabha Samachar*, a weekly paper, sold at the cheapest price of one pice in which he gave out his new ideas to young Bengal. Prafulla Chandra was a regular reader of the paper and he also attended regularly the Sunday evening sermons which Keshab Chandra delivered at the Brahmo Samaj—a new Samaj which he founded after he seceded from the Adi Samaj. Prafulla Chandra's father, when he brought his sons to Calcutta for the first time in August 1870, took lodgings very near the Brahmo Samaj which had just been built by Keshab Chandra on his secession from the church of Devendranath Tagore.

It was at this stage that Keshab Chandra entered on what was perhaps the most active period of his life. His oratory has become a legend now; in his own time the *Statesman* remarked: "When Keshab speaks, the world listens. Madras called him the 'Thunderbolt of Bengal.' " Later orators like Surendranath Banerjee claimed to be his disciple. It will not be out of place to reproduce here Surendranath Banerjee's impression: "His marvellous oratory, set forth with all the accessories of a sonorous voice, a noble diction and a commanding presence, and inspired by the fervour of a deep and burning conviction, fascinated his hearers. I was often at his meetings and I listened with breathless attention and ever-increasing admiration."

On return from England in 1871, Keshab Chandra organized the Indian Reform Association for the spread of education among men, women and the working classes, for temperance and relief operation by concerted work. In 1872, he started the Bharat Ashram for model Indian families. He founded the Albert Hall in 1876, for mobilizing public opinion.

Prafulla Chandra would never let slip an opportunity of hearing Keshab Chandra's addresses at the Town Hall and at the open-air meetings or lectures on Saturday afternoons at the Albert Hall. The deep admiration which he felt for Keshab Chandra, after hearing his speeches and sermons, and for his progressive ideas and religious fervour and social reform, contributed a good deal to the making of Prafulla Chandra, so far as this side of his character was concerned. Elsewhere in his book he writes about his good fortune in being able to listen to Keshab Chandra: "I had also the good fortune to listen to the impressive sermons and addresses of Keshab Chandra Sen any number of times. He was the type of a 'poet-prophet in the pulpit', and surrendered himself to his emotion and soared with wings. He never agreed, he proclaimed thrilling tidings of a new dispensation".¹

And not Keshab Chandra alone, his brother Krishna Behari Sen also was an influence to be reckoned with. He was the joint-editor with

¹ *Life and Experiences of a Bengali Chemist*, pp. 31, 538.

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Narendranath Sen of the *Indian Mirror*, the only English daily on the eastern side of India under purely Indian control. In his eagerness to read it young Prafulla Chandra, boy as he then was, would go to the Albert Hall an hour before the classes began. An erudite scholar, Krishna Behari, though a failure as a public speaker, wielded a powerful pen. He was the sole editor of the Sunday issue of the *Indian Mirror* which exclusively dealt with religious thoughts. The young student's literary bent also was strengthened by his contact with Krishna Behari Sen who was very well-read in English literature.

AS A MEMBER OF THE SAMAJ

Prafulla Chandra joined the Sadharan Brahmo Samaj fairly early in life. The actual date of his enrolment cannot be traced now, but most probably it was in 1878 or 1879, as we find his name among the donors for the construction of the Prayer Hall about that time. The work of the Sadharan Brahmo Samaj, which had the harmonious development of life, —spiritual, social, moral and political—as its ideal, and stood for social reform and social welfare, had a strong appeal for Prafulla Chandra Ray. He not only joined it as a member but took active part in its work. In a reminiscent vein, speaking of Young Bengal in the days of his youth, he wrote :

"The Brahmo Samaj movement aimed at the abolition of caste system, the removal of social inequalities and uplifting of women by the spread of education among them. It was altogether democratic in its tendency. The great Hindu Society, although it did not fully share the Brahmo doctrines and follow the practices, was at heart in sympathy with and could not fail to be leavened by them."¹

Again we find in his autobiography:

"Work in connection with social service has also been my hobby, as a member of the Brahmo Samaj I threw myself heart and soul into its activities. It fell to my lot to organize the Brahmobandhu Sabha and its evening parties, so as to bring together members of our church scattered throughout the town. The Sadharan Brahmo Samaj is founded entirely on a democratic basis and is a commonwealth of the church of God. I was elected a member of its Executive Council and served in that capacity for several years."

He attended prayers at the Samaj and his personal copy of the Upanishads was well thumbed.

Prafulla Chandra was also a member of Adhyaksha Sabha (General

¹ *Life and Experiences of a Bengali Chemist*, pp. 146-7.



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Committee) of the Sadharan Brahmo Samaj for several years and of the Executive Committee for 1898 and 1907-1910. He was elected President in 1941 and was one of the trustees of the Sadharan Brahmo Samaj till his death.

That the work of the Sadharan Brahmo Samaj was very dear to his heart is further proved by his generous contributions for the propagation of its message. He created a permanent trust fund, the income of which was to be utilized for the mission work and congregational worship of the Sadharan Brahmo Samaj and for social welfare. Moreover, in his last will and testament he made Sadharan Brahmo Samaj the residuary legatee.

Education and welfare of students was very dear to the heart of Prafulla Chandra. In addition to other educational work, he was closely associated with the City College of the Brahmo Samaj Education Society. He was a member of its Governing Body, the City College Council, for more than twenty years and helped the college in all possible ways.

Keenly interested in students, particularly for the improvement of their character, and development of rational thinking amongst them, he was eager for their all-round progress, physical, intellectual, moral and spiritual. He was closely associated for a long time with the Students' Weekly Service organized by the Brahmo Samaj, being its Vice-President and later on its President. He created a trust fund with the Sadharan Brahmo Samaj, the income from which was to be utilized for the Students' Weekly Service.

It was a memorable address which he delivered as the President of the Tangail (Mymensingh) Session of the Bengal and Assam Brahmo Conference in 1936. There he said:

"I adopted worship of the Supreme Reality as the highest achievement of life, and I have travelled through life always keeping meditation and worship of the Divine Truth and the motto, 'To love God and to do work dear to Him' is real worship' before my mind to guide me as the pole star."

His great admiration for Raja Rammohun Roy was evident in the following words.

"In those dark days Raja Rammohun Roy, the great soul, began the fight against all blind customs and superstitions and it was through his effort that our country got the first taste of mental and spiritual freedom. It was Rammohun Roy who removed the heavy granite load of blind customs and rituals from the heart of the country and sounded the trumpet of Truth and Immortality to the dying race."



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Regarding Brahmo Dharma, which Prafulla Chandra adopted as his religion, he writes.

"When I first came to Calcutta from the social conditions and environments of rural Bengal of nearly a century ago, nurtured in various blind customs, rituals and superstitions, the meshes of all untruth and its shackles were broken wide open by the keen rational thinking of the Brahmo Dharma of the golden period. From those days I have adopted Brahmo Dharma as the foundation of my life.

"The Brahmo Samaj has placed such a grand ideal of universal religion before all men seeking spiritual progress, that in trying to fully realize its full significance and truth, I feel submerging myself in a vast ocean and feel completely lost in wonder and admiration at its Universality. The Brahmo Dharma is ever-wakeful, ever-progressive and ever-expanding."

Prafulla Chandra held that the universal ideals of Brotherhood of Man and Fatherhood of God were essential for the real freedom of India and a clarion call to his countrymen he sent from the bottom of his heart.

"I can make this prophecy with all my heart that the real freedom of India can never be achieved in hundreds of years unless the country accepts the eternal ideas of the Brahmo Samaj: One nation, One God, One country, One heart."

VII

PRAFULLA CHANDRA—THE MAN

HIS FAITH

Acharya Prafulla Chandra Rây achieved greatness by his remarkable activities in various fields of life. He was a pioneer of chemical education and chemical research in the country and the founder of an Indian School of Chemistry. A promoter of chemical industries in India and the founder of Bengal Chemical and Pharmaceutical Works Ltd., he was also a ceaseless and devoted worker for the social regeneration, the economic uplift and the political emancipation of the country. All these were but a mere outer expression of an inner urge which supplied them with their motive power and helped to reveal the inner man. A more reliable measure of this inner man is, however, obtained from a closer acquaintance with Prafulla Chandra's personal everyday life where no cloak of conventionality, no attempt at making a good impression or favourable appearance, and no rules of social intercourse intervened to obscure its manifestation. This inner urge in every man may be identified with his true religion or faith, which he lives by. It differs in different men according to the stages of their evolution. In Prafulla Chandra it might be identified with the spirit of selfless service to humanity. This was his religion. For, he realized that to serve one's fellow beings was to serve God. It constituted the outstanding feature of his life, and it furnished the clue to his many-sided activities. He did not believe in an anthropomorphic God with human attributes of love and mercy, or hatred and vengeance. With a mind dominated by scientific discipline he regarded the pursuit of truth as the only objective of life that could lead an individual or a nation to the desired goal of happiness and welfare. Nothing good and great, he always believed, could ever be built upon the basis of untruth. Truth and God were synonymous terms to him, viewed as an all-pervading driving force in the universe. For this reason, he failed to attach much significance to the loud public response to the untouchability movement launched by Mahatma Gandhi, in so far as this response from the public was tinged with political diplomacy. His strong dislike for all artificial measures, political expediences, insincere conventionalities and polished prevarications had their origin in his uncompromising regard for truth. This is presumably the reason why, though initiated in, and sincerely devoted to, Brahmo Dharma which he adopted as his life's stay, he sternly refused to be hide-bound by any of its dogmas. In fact, he was seldom found in

later life to indulge in prayer and meditation. To him work was worship, if done selflessly and in a spirit of dedication. Work and service thus became the motto of his life. It will, therefore, be not far from truth to conclude that Prafulla Chandra's religion was more or less in keeping with his scientific conviction. But it is rather difficult to state if he believed in the doctrine of rebirth or survival of the human soul after death, though he had related in his autobiography an incident of his own premonition of a scene following his sister's death at home while he was in Edinburgh. He, however, attached little significance to it.

A glimpse into his religious conviction can be obtained from his Presidential Address at the Annual Conference of the East Bengal Brahmo Samaj in 1936. It will be observed that Prafulla Chandra used to entertain a pragmatic philosophy of life.

It might be of interest to quote here some words of Professor F. G. Donnan of the University College of Science, London, which he wrote about Prafulla Chandra in the *Acharya Commemoration Volume* (p. 67) in 1932 on the occasion of his 70th birthday celebration.

"Sir P. C. Rây, however, has been throughout his life no narrow laboratory specialist.....His ideals have always been hard work and practical good in service of his country. Though devoted to the cause of pure science, he has never been the impractical dreamer in the clouds. But he has never asked much for himself, living always a life of Spartan simplicity and frugality—Saint Francis of Indian Science. I hope that future ages will cherish his name as one of the band of self-denying and devoted men who have revived and handed on the flame that once burnt so brightly in India, the search for truth and the hidden mysteries of things".

PURSUIT OF TRUTH AND AUSTERE HABITS

Prafulla Chandra's passionate regard for the pursuit of truth as the ideal of life made him intolerant of all evil social customs and practices, meaningless rituals and ceremonies, prejudices and superstitions undermining the moral stamina of the people. Follies and foibles of his countrymen, however high they might have been placed, would never escape from his relentless strictures. His indignation against these social evils would often assume the form of emotional outburst giving the impression of an irritable temper to the outsiders. Chronic dyspepsia and a feeble health undoubtedly contributed in a certain measure to the display of such impatience and sensitivity. He was never found happy with the condition of the society and the ordering of things around. This possibly accounts for his passionate zeal for social reform and relief work, born out of his genuine love for his countrymen, particularly the poor and distressed with whom he liked to identify himself. A slim and frail figure, scantily and almost shabbily dressed in the orthodox Bengali style with a short *dhooti* and a



coat or a shirt, over which a wrap would rest dishevelled or folded—all made of common and inexpensive materials, an aquiline nose, thick eyebrows with penetrating eyes, shaggy beard, rugged hair, and an austere mien complete the physical picture of this saintly scientist. His clothes were seldom ironed and his hair rarely brushed or combed. In later years he used to wear only home-spun clothes. While in the Government service as professor of the Presidency College his dress would consist of a coat and a trouser made of cheap country-made (made at the Mainamati village in the district of Tipperah) cloth, often disfigured with several holes caused by the action of acids dropped accidentally during the demonstration of lecture experiments, or research work in the laboratory. His extremely simple dress would often make it difficult for strangers to find him out, and many amusing stories are told about such comedies of errors.

A vivid pen-portrait of Prafulla Chandra was depicted by Principal Devaprasad Ghosh in 1932 in the *Calcutta Municipal Gazette* (December 17, 1932) on the occasion of the celebration of his seventieth birth-day. A close parallelism between Prafulla Chandra and one of his most favourite writers, Thomas Carlyle, has been brought to our notice in an article, excerpts from which are worth quoting here for the entertainment of our readers.

"The same bushy eyebrows, shaggy beard, deep-set penetrating eyes, and general appearance of *malaise* with the ordering of things in general—cynics associate this last with dyspepsia—which mark the rugged features of the aged sage of Chelsea, mark also, perhaps only in a less pronounced degree, those of the saintly savant of Parsi Bagan..... The sturdy independence, the unbending backbone, the shrewd commonsense, so characteristic of the hard-headed Scot, the utter contempt for wealth, the most devastating indifference to manners and appearances, the absolute unconventionality of conduct and behaviour, the missionary zeal and the prophetic ire and the somewhat rough exterior withal, the deep-seated love that flows ever increasingly into suffering humanity—all these mark our great beloved Bengalee as much as they did the great venerated Scot.

"But I suppose that our revered teacher is kindlier than the Scottish sage—perhaps the very vehemence of Carlyle's denunciation of the follies and foibles and mannerisms of mankind hardened him more and more into the mould of the irate prophet, while a less rigid and more human outlook on life and a more intimate contact with the sufferings of his fellow-men in this unhappy land has softened his (Prafulla Chandra's) mould, and made him at the present day less a denouncing prophet and more a loving friend and sympathetic guide of his countrymen.

"But the Carlylean philistinism remains—the philistinism that makes his life and behaviour unspeakably simple, natural and unaffected—that



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makes him a democrat to his finger-tips—that makes him feel absolutely at home with the merest man in the street but rather ill at ease in the company of the genteel and the polished and the high-brow aristocrat—that puts him, if I may say so without offence, almost in a fighting mood against a specimen of the latter class—that makes him pour out his last penny for the succour of the poor and the distressed but instinctively makes him shirk from the patronizing touch of the wealthy and the plutocrat—it is this robust philistinism, I repeat, which makes of Acharya Prafulla Chandra, a most remarkable character in our present-day society.

“A teacher all his life, essentially a student throughout, a teacher whose only love is the books that he teaches and the boys that he inspires, a man of the most abstemious personal habits, a non-smoker, a teetotaler, one whose diet has steadily been reduced to an almost irreducible minimum, a householder whose domestic paraphernalia are exhausted in an iron bedstead, a small table, a smaller chair, an almirah of books, a wardrobe which consists, besides an occidental great coat—nobody knows how many decades old—of a dark-grey wrapper and a few pieces of coarse shirt and *khaddar dhooties* eight cubits long, and very little besides, which, by the way, this veteran knight of the British Empire washes himself every week with big lumps of country-made soap—I do not suppose a veritable roving nomad of Tartary could be burdened with lesser luggage and chattels and *impedimenta* than this world-renowned scientist The simplicity of his *ménage* is so very elementary that he has scarcely got any privacy left—there are no out-door manners and indoor conveniences for him—the door is always open, and manners are always *en déshabillé*, so to speak, and life always *au naturel*. That is Acharya Rây.

“This naturalness and elementary simplicity makes everyone who approaches him—some, perhaps, approaching with great nervousness and trepidation at the impending contact with a famous personage—at once feel quite at home. There is not the slightest pose about him—no stand-offishness, not the slightest breath of patronizing airs—but an overwhelming heartiness and unaffectedness of manner which first surprises and bewilders and then charms and enthrals the most distant visitor. I confess that this heartiness sometimes becomes physically overwhelming—for it very often takes the shape of thrusts and blows and kicks and cuffs showered upon the person of the visitor—particularly if he is a young man on the right side of forty—perhaps to take a measure of the physical fitness—but if the visitor can survive this preliminary bombardment without flinching, the way to the citadel of the great man’s heart lies open before him, and he will then find it difficult to wrench himself away from the varied and interesting conversation that Acharya Rây will regale him with. Whenever you catch him, in his so-called home, that is, an unobtrusive corner of an insignificant room in the first floor of the College of Science, partitioned off into a kitchen, a store-room and an apology for a bedroom, or on his way to the *maidan* in the evening, or in his laboratory



perched on a small stool three-feet high, handling test-tubes, measuring chemicals, and manipulating Bunsen burners, you will always find him the same—the same child-like, hearty, unaffected, unassuming, yet overwhelming Dr. Rây."

The Spartan simplicity in dress and almost ascetic austerity in diet were not mere isolated characteristics of the way of Prafulla Chandra's living. They were but individual aspects in tune with an integrated pattern of life, in which wastage of any kind and in any form would be considered as no better than a degrading and vicious habit. For, waste signifies ultimately depriving oneself and others of some necessities of life, however small they may appear at the moment. He would, for this reason, regard the habit of waste almost as a crime. We have already referred to his strong indignation at the wastage of chemicals, filter papers, gas, water, and electricity in the laboratory. This applies equally well to the waste of time, as it is equivalent to loss of opportunities for work. Prafulla Chandra was very much alert on the economy and proper use of time, and anybody found engaged in idle talks or gossips during working hours would never escape from his severe castigation. He himself was very particular about it, and used to observe a rigid time-table in his everyday life. About two hours in the morning were fixed for his study, and any visitor intruding during the time had to be prepared not only for a cold reception but, in the case of younger people, often for a shower of the choicest epithets of abuse from the rich stock of his English or Bengali vocabulary.

As the daily requirement of Prafulla Chandra's food was very small because of his feeble health, any article of food presented to him by a friend or an admirer, or collected from any house on ceremonial occasions where he was invited to attend, would be kept for use, stored in a desiccator, for as many days as possible. But he would have to pay often the penalty of his miscalculation, as the things would show a sign of deterioration after two or three days. A circular invitation would then be issued to all the workers in the laboratory to have a share in the 'delicious' repast.

Prafulla Chandra also used to exercise a strict control over his household expenditure and observe a rigid economy, which might appear almost stingy to others for a man of his position. He had an inviolable fixed budget for his daily marketing. His household usually consisted of half-a-dozen young men,—some of his research students and two or three poor students from outside dependent on his charity. One of his senior-most research workers used to function in the combined capacity of his secretary and the *mâitre d'hôtel*. This gentleman would be taken severely to task if he happened any day to exceed the daily budget limit in marketing. A very amusing but highly instructive incident might be related here, which delineates beautifully the real man inside his frail figure. One of the daily budget items of marketing for his household was

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the purchase of 2 pice (half-anna) worth of bananas for Prafulla Chandra. One day a quarter dozen plump and luscious bananas were purchased from the market by his student-steward. Prafulla Chandra at first jumped with glee at the sight of those lovely fruits but when he heard that they had cost an anna and a half, he at once gave vent to his displeasure by his usual physical method of administering blows and cuffs on the prodigal, as well as by boxing his ears and pulling his hairs. This happened at about 8 a.m. in the morning. An hour later Prafulla Chandra went down to his laboratory. There came a visitor to see him at about 11 a.m. He was Prafulla Chandra Ghosh of Abhoy Ashram. As usual perching on his high stool he was manipulating his test-tubes and beakers, and at the same time carrying on conversation with Ghosh. The latter was in need of money for his Ashram and wanted a sum of Rs. 3,000/-. Acharyadev sent for his secretary who had been chastised by him only three hours ago for the indiscriminate stretching of the budget limit by a sum of one anna only. On being enquired about his bank balance in the pass book, the secretary replied that there was a sum of Rs. 3,500 and odd rupees to his credit. He asked for the cheque book, and signed a cheque of Rs. 3,000/- in favour of P. C. Ghosh and made it over to the latter. He then resumed his usual laboratory work interspersed with discussion with his visitor. Puzzled at the course of events revealing an apparently inexplicable variance in his teacher's behaviour, the secretary remained standing for a few minutes and then left the place in a pensive mood. The money was needed by Ghosh for his village uplift work. Here was a man who would not tolerate an extra expenditure of an anna for his own comfort, but could give away without a moment's thought practically the whole of his bank balance in the current account for the benefit of the poor and down-trodden village folk.

An interesting instance of his personal economic habits and utilization of waste materials is furnished by the fact that he would remove carefully every unused or blank sheet from the letters received by him from others. These he would use himself for the purpose of his own correspondence.

The utter simplicity of his dress, which helped him to identify himself with his poor countrymen, served further as a protest against the pose of superiority assumed by many educated Indians in European dress and against the slave mentality and inferiority complex among the masses in India in consequence thereof. Some interesting incidents of his life might be related here in order to illustrate these points and to bring home to the readers his feelings in the matter.

Once a distinguished literator, a Bengali gentleman, came for an interview with him. The visitor, who was in European dress, was not personally known to him before. Prafulla Chandra met him on the balcony (*verandah*) adjoining his room in the southern wing of the first floor of the University College of Science. As soon as the gentleman was introduced



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to him by one of his colleagues (an old pupil), Prafulla Chandra at once caught hold of his neck-tie and burst out: "Why have you put this noose round your neck and what is the meaning of this outlandish dress?" The gentleman was simply taken aback and almost on the verge of collapse at this unexpected affront, but a moment later was made to feel at ease by his overflowing heartiness and childlike simplicity. After this stormy reception they talked for about a quarter of an hour on Bengali literature, and the gentleman departed with a feeling of admiration and reverence for the man who had the rare power of making friends even by an attitude of antipathy. Prafulla Chandra was equally strong in his denunciation of foppishness displayed by many young people.

We shall now relate two more incidents of his life which illustrate his repugnance to the premium placed on European dress in assessing dignity and prestige.

Once as a member of some Commission appointed by the Government, Prafulla Chandra had to attend a meeting at the Grand Hotel, Calcutta. Devaprasad Sarbadhikary was also a member of the same Commission. Prafulla Chandra arrived at the hotel a little earlier and was waiting near the gate under the portico for the arrival of his friend Devaprasad. The porter at the gate, judging from Acharya Rây's appearance and extreme simplicity of his dress, took him to be an attendant of some European member of the Commission waiting for his master and enquired of Prafulla Chandra about the time of his master's arrival:

तुम्हारा साहेब कब आवेङ्गे? (When would your boss arrive?). The reader can well comprehend that the story had its both a comic and a tragic aspect.

On another occasion Prafulla Chandra was refused admission to the lift chamber by the man in charge and was peremptorily directed to use the staircase for going up to the third floor of a building with these words:

इये साहेब लोगोके वास्ते है, तुमको लिये नेहि । सिङ्गिसे चला जाओ ।

(This is for Europeans, not for an Indian like you. You should use the staircase.) Prafulla Chandra, however, did not tolerate this disrespect shown primarily to the Indian dress and moved in the matter, and the lift man had to pay for his impertinence.

Another aspect of his character was his dislike for exercising authority, even when placed in a high position. As a senior professor of chemistry in the Presidency College he would authorize his assistant Chandrabhusan Bhaduri to do all the administrative work on his behalf and would find a curious pleasure in telling others that his "conscience is in Chandra Babu's keeping". Similarly, in the University College of Science, he would not like to execute the administrative work of the Department, which was his due as its Head, but relegated it to his colleague Prafulla Chandra Mitter, then Sir Rashbehari Ghosh Professor of Chemistry. In fact, power and position had little attraction for him in life. His main pleasure



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was in creative and constructive work performed with a spirit of dedication and humility. Writing in his 70th Birthday Commemoration Volume in 1932, Professor F. G. Donnan made the following very apposite remarks about Prafulla Chandra and his work :

"He was on a visit to England and had come to see my laboratory at University College and some of his friends and former pupils who were researching there at that time (Bhatnagar, Ghosh and Mukherjee). Did he arrive with much ceremony and a flourish of trumpets? No! I found it extremely difficult to know when he had arrived. The extreme modesty of the man was amazing. Here was the Father of Modern Chemistry in India in my laboratory, and yet one scarcely knew he was there at all.

"I noticed how he was revered by his old pupils. But not only revered—beloved also. Here was a man who, through the personal example of a life devoted to science and to the care and teaching of his disciples, could inspire in them the deepest reverence and affection. I found then and afterwards that the words modesty and devotion could best describe the personality of Sir P. C. Rây. From the great Buddha onwards through the stream of time, these qualities of mind and spirit have ever been the characteristics of the great leaders of Indian thought and Indian ideals. They have shone with conscious and serene brightness throughout the life and work of Sir P. C. Rây."

In Prafulla Chandra one might recognize an attempt at blending what is best in the West with that of the East. Development of scientific research and industries in the country, so characteristic of Western civilization, found in him a powerful exponent and ardent worker, while he adopted a life of ascetic simplicity and selfless service, representing the best traditions of the East. The rational attitude of his mind, born of his scientific discipline, prompted him to fight against numerous social evils, prejudices and superstitions, while maintaining a high regard for the ancient religion of his forefathers as expounded in the maxims of Upanishads.

The vital force, which pulsed within him and served as the fountain-head of all his thoughts, words and deeds, may be identified with his love for the teeming millions of his countrymen,—poor and lowly—striving desperately for a bare existence. With truth as his ideal and love as the driving force, service for the moral and material uplift of his countrymen became the mission of his life. This supplies the key to the understanding of Prafulla Chandra, the man, and his activities in life.

SERVICE AND SACRIFICE

Prafulla Chandra did not earn much in life. His income was rather limited throughout. Nevertheless, he gave away in charity what only a



few rich men could do. The total amount of his public charity approaches the value of nearly Rs. 2,00,000. In addition, the amount of his private charity, no record of which is found, was also not inconsiderable. It consisted of occasional or regular help to the poor students, modest industrial enterprises, village construction work, political sufferers, Khadi work, women's home, orphanages, village schools, etc. It seems rather paradoxical, but becomes readily intelligible if we remember that his wealth did not arise out of plenty. It was indeed the result of a rigid economy and austere habits, of which some instances have already been given. His few wants enabled him to save largely from his limited earning. Self-denial was its basis. It seems he realized fully the significance of the maxim of the ancient Indian sages, which asserts that he, who, being blessed by the gods with good things and riches of the earth, enjoys these himself without sharing with others, is a thief in disguise :

तैदत्तानप्रदायेभ्यो यो भुंक्ते स्तेन एव सः ।

It will be seen that all self-indulgence was to him no better than robbing his fellow-countrymen who were afflicted by poverty and want. Masses, weights and mechanisms of the world had, therefore, little attraction for him and he succeeded in expanding his heart and universalizing his outlook. He thus lived a life of pure self-immolation giving all and taking nothing in return. In the words of Emerson, his favourite philosopher, it might be said that he was "in this world not to get but to give; not for prosperity but to suffer for the benefit of others like the noble rock-maple tree which in all the villages bleeds for the services of man". Even in his pursuit of chemistry he was fully alive to its application for the welfare of the society and set an example as a pioneer of chemical industries in India by founding the Bengal Chemical and Pharmaceutical Works, Ltd. Having made service to his fellow men a sacred duty of his life, he was always reluctant to take service from menials and servants. Prafulla Chandra was possibly the only Knight of the British India who had no valet and would not find it derogatory to wash his own clothes and to polish his own shoes.

It thus becomes clear that Prafulla Chandra's greatness is a mere by-product of his goodness, and we naturally find no barrier of isolation around him. Readily accessible to all, old and young, rich and poor, pundits and peasants, he was loved and revered by all. He could greet all classes of people, friends and strangers, with equal warmth of feeling and with an equal indifference to all ceremonies, punctuated often with his kindly slaps and blows. You could make friends with him in no time as with a child. This is a type of greatness which differs from the one achieved by the possession of power, wealth, position, or knowledge, or by any spectacular heroic deed. It is not a greatness of unapproachable height, but a greatness of infinite expansion of the heart and soul on a common level. It is not the greatness of exalted Hīmalayan individuality, but one of Christian fraternity. It was his love and



sympathy for the common people that constituted the outstanding feature of his greatness.

Prafulla Chandra always abhorred a life of mere eating, drinking and sleeping, or of bargaining and book-keeping. To him life was a glorious labour, a battle-field of conflict with splendid wrongs for the attainment of a noble purpose. We find in him a clear and rational mind, a noble and sympathetic heart, an indomitable will and sturdy independence, all pledged to some arduous and unselfish task, in which he wholly spent himself. History is constructed by the activities of such lives; for, these inspire the conscience, and deepen the earnestness, of succeeding ages. We thus find a connecting link running through apparently disjointed manifold activities of Prafulla Chandra's life, furnished by the sustaining force of love and the spirit of selfless service. Viewed in this light the diversity of his activities appears as a mere poly-faced expression of a comprehensive piece. In this connexion it might be of interest to quote his own words :

"I confess I am a strange contradiction. Although I am generally credited with being an industrialist, yet from the dawn of my intelligence the ephemeral character of the phenomenal world has haunted me and a disregard for worldly effects has become my second nature. Thus the writer (meaning himself) lacks the essentials of a successful industrialist or businessman, as he has always realized the force of the saying—**अर्थमनर्थ भावय नित्यं**— that is to say : 'love of money is the root of all evil'. So the dominant note running through his life is : 'Lay not up for yourselves treasures on earth : for where the treasure is, there is the heart also'."¹

WAS HE PAROCHIAL ?

Prafulla Chandra was accused at times of parochialism and provincialism, as he deplored and complained all through his life of the indolence, the love of ease and comfort, the lack of initiative, enterprise and adaptability, the dread of hard work, the false sense of dignity which sneers at the manual labour, and the craze for university degrees of the Bengali youth, which make him unfit for the pursuit of business, trade and commerce, and have been the cause of his failure in life. By unassailable facts and figures he further showed that these had led to an economic conquest of Bengal by non-Bengalis from Marwar, Sindh, Gujarat, Bihar, Orissa, etc., making the problem of unemployment and bread for the middle-class Bengalis very difficult of solution. He never failed to harp on this theme in season and out of season from many platforms and in his numerous publications. But the accusation of provincialism for his exhortation to Bengali youths for emulating the example of their non-Bengali brethren could, in our opinion, hardly be

¹ *Life and Experiences of a Bengali Chemist*, p. 541.



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justified. For, he never suggested on any occasion, even by implication, the curbing of business activities of non-Bengalis in Bengal by means of any legislative measures or organized public opinion. He was patriotic enough to realize its folly and shrewd enough to recognize its futility for the solution of the problem. Let us quote here his own view on the matter as expressed in a letter to S. S. Bhatnagar in 1935 and reproduced in the appendix.

"You hint at my provincialism, but underneath it there is a bitter cry over the indolence and lack of enterprise of every class of the Bengali. For instance, I am writing in Bengali a small book pointing out the failure of the Bengalis in every branch of trade, commerce and business in general In Calcutta in Burrabazar the Marwaris and Bhatias (Gujaratis) have monopolized all the import and export business. In Calcutta again, all the bus and taxi-drivers are Sikhs and some of the big railway contractors in the E. B. line are Punjabis. I instance this not out of jealousy but to draw pointed attention of Bengali ineptitude..... If I allude to the Marwaris and Bhatias, it is not to excite jealousy but to open the eye of the Bengalis According to the latest census report drawn up by Hutton, by money order alone some six crores are annually remitted from Bengal by the labourer classes, chiefly Biharis. In my *Life and Experiences* I have pointed out that to the district town of Saran every year a crore of rupees is remitted by money orders; and this is also borne out by the census report. Our cooks and household servants are almost entirely recruited from Orissa, Bihar and U.P., showing that we ourselves have to engage them because corresponding classes of the Bengalis are idle and incapable. Twelve crores we have to remit to the Bombay and Ahmedabad mill-owners and more than two crores to the insurance companies there. I have given in my book an estimate of ten crores per month, i.e., 120 crores per year—drained away by the non-Bengalis excluding Europeans from unhappy Bengal.

"I have, repeatedly, to point out these out of agony but not out of jealousy. If a Bengali, often domiciled, were to get a Government job worth fifty or one hundred rupees per month a hue and cry is raised by the Oriyas and Biharis, though the economic conquest of Bengal is almost complete by these very people.

"I hope you will now understand my position".

The readers will be able to gauge the depth of Prafulla Chandra's feeling on the problem of economic distress in Bengal and of the unemployment of Bengali youths from the following lines which occur in the concluding remarks of his *Life and Experiences of a Bengali Chemist* (p. 543).



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"I have ventured to say many things about the shortcomings of the Bengali, with the fond hope that my timely note of warning will not be a cry in the wilderness. The Bengali has got many noble qualities and I am proud of my nationality and I glory in being a Bengali. In one essential aspect, however, he has proved to be a dismal failure, namely, in the art of earning his livelihood. The bread problem of the Bengali has been my obsession during the last forty years, and to my dismay I have been watching that in the land of his birth he is least able to stand the keen competition which faces him in every field. As I am writing these lines, I have been touring from village to village in my native district and keeping an eye on the boys and young men. Their stunted growth, and pale, anaemic, lack-lustre looks bear ample evidence of malnutrition. Helplessness is writ large on their countenance. A spirit of defeatism pervades them and they are daily sinking down into a despondent rut. When the manhood of a nation in the prime vigour of life is sunk in despair and struck with mental palsy there can be no hope for the future. And yet, in the evening of my life, I cannot afford to give up hopes.

"As an humble educationist all through my life, it has been my painful duty to point out how the craze for university degrees has become an unfortunate source of many fatal drawbacks. The Bengalis are perhaps the worst victims of this craze and the result is, as Barnard Shaw puts it 'A fool's brain digests philosophy into folly, science into superstition, and art into pedantry. Hence University Education'. It is only too true that 'a learned man is an idler who kills time with study. Beware of his false knowledge. It is more dangerous than ignorance. Activity is the only road to knowledge.' Let me echo once with the great writer: 'When a man teaches something he does not know to somebody else who has no aptitude for it, and gives him a certificate of proficiency, the latter has completed the education of a gentleman' and thus becomes a failure all his life."

CONCLUSION

In our opening remarks we have referred to Prafulla Chandra's religious belief. We have characterized it neither as agnosticism nor as orthodox theism, but more or less allied to pantheism. It will be, however, nearer truth to say that his pantheism leaned rather heavily to, or blended somewhat with, the Vedantic doctrine of *Adwaitism*. He entertained a firm faith in the existence of a moral and rational nature in man, to which he owed his allegiance and surrendered himself for guidance. In fact, a man's belief can never be incongruous with his life except under hypocritical pretence. A man is known by his belief, as his belief is known from his life. A man and his belief are related to each other as the object and its mirror-image, so to say. The following



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excerpts from the closing words of his *Life and Experiences of a Bengali Chemist* (pp. 541 & 545) give the content of his faith:

"Whatever field I have ploughed I have ploughed as an humble instrument in the hand of Providence: my failures are my own: to err is human. But my successes, if any, are to be attributed to the guidance of the All-knowing, who chose me to be his humble instrument. After all, a divinity shapes our ends.

"All through my varied activities I felt the force of the saying: त्वया हृषीकेश हृदिस्ति तेन यथा नियुक्तोऽस्मि तथा करोमि — I commit myself to Thee, O Lord! make me Thy agent."

This attitude of surrender was in the process of development in his mind toward the end of his life; for, surrender in its correct implication involves the eradication of ego-sense and is associated with a feeling of detachment and indifference to the result of one's activities. This was clearly absent in all his endeavours. He had a shrewd and intelligent business sense, and participated actively in business and industries with an alert mind for their success. He worked for the intellectual, social, economic and political emancipation of his country and was very much interested in the fruits of his efforts. He was a practical man of the world and should be judged in the light of its current standard. He was an active worker in the service of humanity which formed the mission of his life, and which he fulfilled for the good of his country with an austerity of self-denial that few can imitate.

A very apt assessment of Prafulla Chandra as a man, made by his friend M. O. Foster, who was the Director of the Indian Institute of Science, Bangalore, occurs in the *Acharyya Ray Commemoration Volume* published in 1932 (p. 90) on the completion of his 70th birthday. Let us close with this, which runs as follows:

"For my part, I commemorate him as an ardent investigator, an alert-minded spectator of life to whom every branch of mankind's activity presents interesting features, a disputant and thinker of sturdy independence and sub-acid humour: but above all, as a very lovable and sympathetic human personality".



PART II

REMINISCENCES AND TRIBUTES

SECTION A—ENGLISH

SECTION B—BENGALI

ACHARYA PRAFULLA CHANDRA RÂY

By A. C. BANERJI

Acharya Prafulla Chandra Rây and my revered father Gyanendra Chandra Banerji were great friends from boyhood. They first met in 1879, and they lived for three years in the same boarding house till 1882 when Rây left for Europe. They had other intimate friends among whom mention may be made of Dr. Nilratan Sircar, Dr. Pran Krishna Acharya and Sri Joy Kali Dutt of Ranchi. My father used to tell me that Acharya Rây was very loving and affectionate in his nature, and he had a remarkably intuitive mind and a keen intellect. Acharya Rây was simple in his habit and totally unconcerned about his personal comforts. When Rây left for Edinburgh in 1882 for higher studies, my father had to arrange his complete outfit for the journey. Six years' stay in England did not alter his outlook on life. The simple life and cheap living of a Scottish university in those days left a lasting impression on his mind. In 1907, after passing the Entrance Examination from Bhagalpur Zila School I went to Calcutta to get my admission in a college there. My father took me to 91, Upper Circular Road to see Dr. Rây, where he was staying at the time. His most unassuming manner, his intimate and affectionate talk and his magnetic personality created an abiding impression on my mind. I was tall and had a good physique. He asked me if I kept good health and played any games. Then he struck me with his fist to test if I was physically strong. Ultimately he jumped on my back. I told him that I played football and was one of the school eleven at Bhagalpur. Such informal and affectionate treatment of a great man immensely endeared him to me and made me one of his most ardent admirers. Such was my first acquaintance with this great teacher. There was some talk of my staying at 91, Upper Circular Road during my college career under the inspiring guidance of the great man. But as I got my admission into the Presidency College it was ultimately decided that I should live at 82, Harrison Road which was very near the college. This was a boarding house under the charge of Bhai Pramatha Lal Sen, a nephew of Brahmananda Keshab Chandra Sen. In 1907, I attended for the first time a popular scientific lecture delivered by Dr. Rây at 64, Mechua Bazar Street which was then the premises of the Victoria Institution. It was illustrated by simple and interesting experiments. He spoke in Bengali and his language was very lucid. He was the pioneer in delivering popular scientific lectures in Bengali. It was his mission to educate the people of Bengal in the principles of science. He urged the young men of our country to take



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more interest in science. He pointed out that apart from material progress the study of science would enable us to make proper use of our reasoning faculty. In order that the common people of Bengal may understand the elementary principles of science, he began giving talks in Bengali. I was his regular student for four years in the I.Sc. and B.Sc. classes. The first I.Sc. Examination under the new scheme of the Calcutta University was held in 1909. Nilratan Dhar and myself were among the first batch of students who appeared at this examination. We were greatly impressed by the profound erudition of this great scholar and scientist. He was not only a great chemist, but also a great scholar of English and Bengali literature, as well as of ancient history and archaeology. The great scientist Dr. Meghnad Saha imbibed his keen interest in ancient history and archaeology from his *guru* Acharya Rây.

Acharya Prafulla Chandra by his personal contact and inspiring personality was able to mould the life and character of numerous young students who became prominent afterwards in their respective fields of study. He taught them to live well-ordered and disciplined life and to do service to our country and countrymen. He urged us to read the autobiography of Benjamin Franklin and emulate his example. Acharya's life was the most fitting example of 'plain living and high thinking.' He taught us to love Bengal, to love India. He was much depressed by the economic condition of the Bengalis—especially the middle-class Bengalis. The average Bengali disdains manual labour; very few of them have business acumen or necessary training in the productive processes of industry. They have no spirit of adventure and are reluctant to take risks. They would prefer easy jobs with a fixed income in the shape of salary. Consequently there is continuous drain of money from Bengal to other States or even to places outside India. He pointed out that if Bengal was to prosper and become affluent the economic drain, if not stopped, should be substantially reduced. Productive industries manned by the Bengalis should be started in the State. They should be trained to appreciate the dignity of manual labour.

In supporting the cause of the Bengalis Acharya Rây was misunderstood by some people in other States. They did not seem to realize that he was not against any State, but he wanted to save Bengal, and in saving Bengal also to help other States. An impoverished and bankrupt Bengal would be according to him a menace not only to the Bengalis but also to the people of other States.

Under the influence of this great teacher I thought of taking chemistry as my main subject. But in my B.Sc. class, in course of experiments on chemical analysis under Group II, once I began to pass H_2S into a solution, when the stop-cock of Kipp's apparatus came out, and I got into my nose the whole gust of raw H_2S . I became unconscious and fell down. My friend Nilratan Dhar who was working next to me rushed to my help. After a little while I regained consciousness. Then I told myself that "I was not



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for chemistry and chemistry was not for me." This is how I became a student of mathematics instead of chemistry.

Acharya Rây had a noble soul and was a great social worker. It was his earnest desire to alleviate pangs of sorrow and hardship of those who were afflicted with misery. He organized Khulna Famine Relief in 1921. There was a good response to his appeal even from the U.P. I used to collect the donations from the U.P. and forward the same to Acharya Rây.

Acharya Rây possessed also a strong sense of humour. Once he stayed at the house of one of his favourite students for several days. He found that the jug in the bath-room of his host was very old and leaking. Later on he told my wife jocosely that his favourite student had already surpassed him in "plain living."

Acharya Rây was a great patriot and every vein of his body throbbed with patriotism. He often said that chemistry could wait, industry could wait, but Swaraj must come first. He knew that unless our country became independent, no economic salvation would be possible. Such was our *guru* who nobly lived his dedicated life. On this sacred occasion of his birth-centenary, we cherish his memory with great reverence.

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By DEBENDRAMOHAN BOSE

In his book *Life and Experiences of a Bengali Chemist*, Acharya Prafulla Chandra mentions that after his return from England in 1888 till June 1889 he was without a laboratory or occupation, and that during this time he was often a guest of Dr. and Mrs. Jagadis Chandra Bose. My earliest recollection of Acharya Prafulla Chandra is associated with this period. My mother Subarnaprova was a sister to Jagadis Chandra, and at this time my father Dr. Mohinimohan Bose and Jagadis Chandra rented the house at 64/2, Mechuabazar Street (now Keshab Chandra Sen Street), a large single storied *baithak-khana bari*, belonging to a zemindar family, the Banerjees of Chandernagore. Attached to this house was a large compound with a tank.

I have a vague recollection of Prafulla Chandra in his girded up *dhooti*, joining us in tilling our small garden patch—he was vigorous in wielding the *kodali*. Some time later he rented the house at 91, Upper Circular Road, where he lived till he was provided with residential quarters at the Science College (92, Upper Circular Road). At this time Prafulla Chandra began experimenting with the manufacture of chemicals. This led gradually to the establishment of the Bengal Chemical and Pharmaceutical Works. We were given samples of some of his earliest syrup, like Rose Syrup, and of perfumes blended by him in some of his experiments. My father was suffering at that time from diabetes. Prafulla Chandra brought one day a phial of glycerine with the request that my father should try it as a substitute for saccharine.

Before he had purchased his office *jan* (carriage) and horse which took him in the evenings to the maidan, Prafulla Chandra used often to take his morning and evening walks in the field attached to our house. I remember him sometimes during winter mornings, coming to our morning tea-table for a cup of tea and some talk. His dress on such occasions consisted of a pair of ancient flannel trousers, an equally ancient tight-fitting overcoat, a Balaclava cap on his head, an woollen comforter round his neck and a thick stick in his hand. He used to invite us to describe his costume and to assign to each part its origin and antiquity. On summer evenings after his customary walk he used to lie down in an easy chair which was placed for him on the paved ghat of the tank. After our house tutor had left, we used to go to him for a chat.

In 1892, my uncle Jagadis Chandra moved to a house he had rented in Convent Road, Entally. We then used to have some guests staying with us. One of them a Swede, by name Karl Hammergrain, made a deep impression on us. Pandit Sivanath Sastri brought him to our house. Hammergrain was a great admirer of Rammohun Roy; while visiting London he had met Sivanath Sastri. Hammergrain who knew several European languages, used to hold language classes which were attended amongst others by Harinath De, Herambachandra Maitra, and Prafulla Chandra Rây. Hammergrain was a popular figure amongst the boys of the locality. He used to visit the local bazaar for drinking coconut milk, and I believe as a result he contracted an acute form of dysentery from which he did not recover.

Jagadis Chandra a year after his return from Europe came back (in 1898) to our locality, renting the house at 85, Upper Circular Road, whose compound had a common wall with ours. My uncle and aunt had come back from England as enthusiastic cyclists. They persuaded Prafulla Chandra, Dr. Nilratan Sarkar and his wife, to learn cycling on the lawn attached to our house and to go out for early morning excursion. Their enthusiasm did not I believe extend beyond one winter season. We of the younger generation naturally became the inheritors of the discarded cycles.

I had occasions to visit Prafulla Chandra in the room he occupied in the first floor of 91, Upper Circular Road. The room had a window looking on to the extensive gardens of the Parsibagan house at 92, Upper Circular Road, which later became the site of the University College of Science and Technology. I remember seeing him on evenings lying on his simple bedstead, the jewel reading lamp turned low—too much reading used to cause him headache. He had a faithful servant Guffoor who used to come to our place with chits and presents of *gur-moa* (ball of fried rice with molasses), etc., which Prafulla Chandra sometimes brought back after visiting his elder brother's house at Diamond Harbour. We remember distinctly the day when Satish Chandra Sinha, a working partner of Prafulla Chandra died of poisoning from taking some medicine in an unrinsed measuring glass which had been previously used for transfer of hydrocyanic acid. Guffoor rushed to our house enquiring after my father who was a physician.

Years passed; in 1900 my father and my uncle Jagadis Chandra purchased two plots of land and erected their houses at 92/3, Upper Circular Road and 93, Upper Circular Road. Prafulla Chandra was a visitor to both these houses; sometimes for morning tea he used to go to the ground floor verandah of my uncle's house; whatever delicacies and fruits my aunt Sm. Abala Bose pressed on him, he used to take along with him for his boys. Occasionally on Sunday afternoons he paid visits to our house where my mother and aunts spent the evening in an open first floor verandah. Prafulla Chandra was a welcome visitor to such



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gatherings, and his opinion on political and swadeshi matters were sought and heard with respect, but not often without some criticism.

I joined the Presidency College in 1900 and began attending Prafulla Chandra's introductory course of lectures on chemistry illustrated with very striking experimental demonstrations. During this period I found Prafulla Chandra's visit to my family rather inconvenient; my misdeeds in the college were duly reported to my mother.

Time passed. I was mostly in Europe during the period 1907-1919. After returning, I joined the University College of Science and Technology; the first person I saw was Acharya Prafulla Chandra reclining in a *khatia* in a second floor room; so far as I remember it was in the eastern wing. More competent people will describe Acharya Prafulla Chandra's period of residence in the University College of Science and all he did for the institution. With the coming of the *charkha* and the khadi movement, Prafulla Chandra had simplified his dress still more which often consisted of a *kurta* and a *lungi*. As in 1890, so in 1930 he used to invite our comments on his sartorial turn-out.

Prafulla Chandra, a life-long bachelor, lived either alone or with a group of his pupils whom he supported, and who in turn looked after him. With advancing age he felt the need for feminine ministrations. When some of his pupils like M. N. Saha, J. C. Ghosh, J. N. Mukherjee got married and occupied important university chairs, Acharya Prafulla Chandra often stayed with them and appreciated the ministering care of their wives.

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IN DACCA AND NADIA

By HARIPADA CHATTERJEE

It was the beginning of the year 1921. The results of our M.Sc. examination were just out, and I was to work as a research scholar under Acharyadev. At that time Mahatma Gandhi had launched his Non-Cooperation movement with a view to gaining Swaraj within a year. The students were asked to suspend their studies and join the movement for emancipation. Deshabandhu Das accepted Mahatmaji's lead and the clarion call was given to the nation by the National Congress at Nagpur in December, 1920. The whole country was in a state of ferment. I approached Acharyadev and acquainted him with my intention of joining the movement. He not only did not dissuade me but also encouraged me and blessed me. From that time onwards till his death in 1944, he had maintained a close contact with us; he was now nearer to us than when we sat at his feet as his pupils. A large number of 'national schools' sprung up in the wake of the Non-Cooperation movement all over the country, specially in some villages of Vikrampur and at certain other inaccessible places of Dacca. Acharyadev used to pay frequent visits to these institutions. He would often make this jovial comment that though Deshabandhu was the father of these national schools, he had hardly any time to look after them. Acharyadev himself had to do the work of foster-mother for them. As a matter of fact Acharyadev acted as the friend, philosopher and guide to all the constructive workers of Bengal irrespective of whether they were engaged in running national schools, or devoted themselves to the propagation of khaddar or other work of national importance.

Gandhiji promised Swaraj within a year provided that the programme he had placed before the country was fulfilled within a specified period. The Bezwada programme (which called upon the country to enlist one crore of Congress members, to collect one crore of rupees for the Tilak Swarajya Bhandar, and to introduce 20 lakhs of *charkha*) was announced on March 31, 1921. An unprecedented enthusiasm was created throughout the length and breadth of the country. Our centre was at Nawabganj, a police station in the district of Dacca. Nawabganj had then a population of one lakh and twenty thousand. Dr. P. C. Ghosh, one of the most prominent Congress leaders of the time, set up his own centre at Dohar, another police



station adjacent to Nawabganj. It was obvious that we had neither the influence nor the resources that Dr. P. C. Ghosh commanded. We had, however, one advantage over him; we enjoyed the full support and patronage of Acharyadev. We claim to be one of the pioneers in the field of producing pure khaddar in Bengal. We had the good fortune to come upon many an aged woman who used to spin in their younger days when Dacca was still famous for its flourishing cotton industry. With the help and willing cooperation of the local spinners we managed to step up our production of yarn, and our monthly output rapidly rose to several maunds. When we produced our first piece of pure khaddar we took it to Acharyadev. He was pleased beyond measure, and in order to set an example to others he himself took to spinning. Acharyadev openly associated himself with our constructive work. He never hesitated to announce publicly that we were his own workers.

Meanwhile a storm was brewing in the political horizon of India. The Prince of Wales was due to visit Calcutta during the Christmas of 1921. The whole country was seething with discontent. The Government was alarmed. Just on the eve of this royal visit the enrolment of volunteers was declared illegal by the Government. We did not enrol any volunteers, neither did we declare ourselves as volunteers. Nevertheless, one fine morning we were all arrested at Nawabganj. The police took full advantage of the fact that we did not put up any defence. We were sentenced to six months' rigorous imprisonment. Just before my arrest I wrote a long letter to Acharyadev giving a full account of the work which we were then doing at Nawabganj. While I was in gaol Acharyadev himself handed over that letter to the editor of the *Dainik Basumati* when that gentleman came to see him. The letter was published with banner head-lines. This might have been done deliberately to show that Acharyadev had an intimate connexion with us. On the expiry of the full term of imprisonment I was released. Acharyadev was highly pleased to see me again; he expressed a desire to pay a visit to our centre at Nawabganj and visited it on several occasions. I have a vivid recollection of his first memorable visit in March, 1923.

The main villages of Nawabganj police station are situated on both the banks of the river Ichchhamati. The picturesque river quietly flows in a zigzag course to join the mighty Padma and the Dhaleshwari. On either side of the Ichchhamati there are vast plains stretching up to the horizon. These are known as *beels* or *chauks*. On the north the plain extends up to the river Dhaleshwari, and on the south to the Padma. During the rainy season these plains are innundated; they are turned into vast sheets of water that join the two big rivers. They look like a perilous sea in the midst of which the villages of Nawabganj appear like so many tiny islands. Even expert boatmen are afraid of the mute and heavy rollers of this inland sea. They would even prefer the roaring breakers of the Padma. The boatmen would never dare cross them in rough weather.



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On these wild wastes of water boat-wrecks were matters of frequent occurrence. During winter and summer the water level in the rivers falls. The vast plains and the marshes dry up. One can then cross them on foot. The *beels* now present a magnificent spectacle of a vast green tract of meadow-land fading away in the mistiness of the distant horizon. In order to reach Nawabganj one has to get down at Mainot, a steamer station on the bank of the Padma. I was once escorting Acharyadev who enjoyed the morning steamer trip very much. The distance between Mainot and Nawabganj is about seven miles. A palanquin was kept ready for Acharyadev, but he would seldom use it, preferring to walk with us and to enjoy the morning breeze redolent of freshness and sweetness of the fields in spring. Acharyadev used to wear short khaddar *dhooties*. It was difficult to keep pace with this frail figure, so briskly he would walk. When tired he would sit for a while under a tree and gossip with us laughing and joking; he would bubble with merriment like a school-boy enjoying a holiday. When we were about to enter the inhabited locality we induced Acharyadev to get into the palanquin; for he must be carried in a grand procession. Besides the khadi centres, we were at this time running a national high school with 17 feeder primary institutions. All the teachers and students were there. To the accompaniment of solemn music played by bandsmen, and bursting of crackers, Acharyadev was conducted through the villages. He laughingly said: "Am I a bridegroom in marriage procession that you are carrying me in this manner?" Before the procession reached its destination the crowd swelled in number till one could only see a sea of human heads. The whole of Nawabganj mustered strong to give the Acharyadev a princely ovation. He remained a few days with us at Nawabganj. A mammoth meeting was held there in a huge pandal erected by the local people. A song, specially composed for the occasion by an obscure village poet, was sung in chorus by the students of the national school. As this song paid a glowing tribute to the great savant, it may not be out of place here to give below an English rendering of a few lines from it:

Thou comest as a god from heaven with a message of
immortality for suffering souls:
Let the two banks of the Ichchhamati ring with the sound
of conches blown in honour of thy victory.
When the dark night receded from the temple gate of Mother India,
Oh aged pilgrim, thou camest carrying the offerings
of new chemistry.
Home thou hast none to call thine own; thy home is
spread over the wide world;
With complete surrender thou hast dedicated thyself
body and soul at the feet of the Mother.
The red glow of the flames of the sacrificial fire that
thou lightest on the sacred soil of India,
Will continue to illumine this golden land through the ages.

*swargadevatā amritāvarttā ārtta lāgiye ānile āji,
ichchhāmateer ghiri dui teer vijoya samkha uthuk vāji.
bhāratamātār mandīra dwāre pohāila yave gabheera rātri,
nava rasāyana arghya vahana karile praveen teertha yātree.
nā āchhe tomār geha āpanār, viswe tomār udāra geha,
nihsheshe diyechha māyer charane sakal parān sakal deha.
ai bhārater teertha kshetre yai homānal jwālile tumi
yuge yuge tār rakta shikhāya deepta karive sonār bhoomi.*

He presided over many other functions and talked to the *elite* of Nawabganj who came to pay respects to him. And they were a motley crowd. There came the American missionary, Father Delanay, who presented to him a copy of his cyclostyled magazine, *The Bandura Tin Horn*. He discussed many problems of the hill tribes of Assam where his mission was then working. The next visitor was Chaudhury Asaf Ali Beg of Galimpur. He was a prominent Congressman of Nawabganj; he later on joined the Nagpur Flag Satyagraha movement. Asaf Ali discussed his problems with Acharyadev. Then there came a Sanskrit Pandit who had two wives and a number of children; he narrated his woes. Similarly others belonging to different walks of life called on him. Acharyadev was all attention to them. But at the same time he, of his own accord, met the poor men of the locality—farmers, day-labourers, boatmen, sweepers, and others—and discussed their problems with them. His loving nature, his childlike simplicity, his unostentatious erudition and his intimate knowledge of various subjects charmed one and all. The multi-millionaire Saha merchants of Kalakopa were fond of us. They had every sympathy for the national struggle. But since they were very much afraid of the police, they always hesitated to pay us any donations. All their fears, however, vanished in the presence of Acharyadev as sure as mist disappears before the rising sun, and they paid handsome donations to him for the cause of khaddar and national education. Acharyadev also acquired a magnificent plot of high land (so rare in the riverine villages of Dacca) for the Nawabganj Jatiya Shiksha Sangsad of which I was the Secretary. The price of the land was about ten thousand rupees. The well-known National High School of Nawabganj and all our khadi centres were later on located here. Through Acharyadev's active help we managed to raise more than sixty thousand rupees in cash and kind for our work centre. His very presence was a perennial source of inspiration to the people. Their political consciousness was aroused as if by magic within the brief period of his stay. It was mainly at Acharyadev's instance that Mahatma Gandhi paid a visit to our institution at Nawabganj in June, 1925. The visit of Acharyadev encouraged Ramaprasad Mookerjee and Netaji Subhas Chandra Bose to take an interest in our activities and they visited Nawabganj in 1927 and 1929 respectively.

Like all great men Acharyadev used to attract crowds wherever he went, but he had a great longing for seclusion. Once we were serving him

breakfast. He had just finished a half-boiled egg. "What is the price of eggs here?" he asked. "A pice each, sometimes two eggs per pice," we answered. Pure cow's ghee giving off a very fine flavour was boiling on the stove before him. We were frying *nimkis* for him. As he was very fond of this delicacy, we were serving him hot *nimkis* direct from the frying pan. Like a child Acharyadev ejaculated in joy: "Bravo! Bravo! It's super-excellent! It's heavenly!" Then he enquired about the price of ghee. On being told that it was only a rupee a seer he wanted to know the price of milk. When he was told that it was only four pice a seer during that time of the year, he exclaimed in joy and surprise: "Suppose I stealthily come to your place off and on and quietly remain in hiding? I am surely not a costly guest. What fine *maurala* fish are found here! (Acharyadev did not like big fishes, he was fond of smaller varieties). I shall not require a bath-room or lavatory; a simple umbrella will do for me. It won't cause any inconvenience to you. You are to do one thing only; you must not inform the public. I shall live quietly. I shall watch your activities and take rest." As I write this the vision of the saintly Acharyadev is conjured up before my mind's eye and his words keep ringing in my ears. Rearing and breeding of cattle was one of the items of Gandhiji's eighteen-point constructive programme. Both Acharyadev and Dr. J. C. Ghosh, the then Provost of Dacca Hall, wanted us to go in for this item of constructive work. Acharyadev enjoined on us to take up this work without caring for profit or loss in the same missionary spirit in which we used to do khadi work. According to him we were in a vicious circle. The cow in Bengal was not an economic proposition, so nobody took proper care of the cow. But until and unless we attended to the cow, her maintenance would never be economic. It took more than two centuries of persistent scientific research and great care to produce economic breeds of cattle in Europe and America. He cited the example of the great European savant who took to cow-keeping leaving aside his professorial work. In India larger sums are invested in cow-keeping than in iron, cotton and jute industries all taken together. And if the cow could be improved and proper breeds could be established, that would go a long way to solve the unemployment problem. According to him this type of constructive work would in no way be inferior to khadi work.

Sometime in 1926, I was invited by Dr. J. C. Ghosh and Dr. J. N. Mukherjee to go to Darjeeling. Dr. Meghnad Saha was also there. We all went to see the dairy farm of Messrs. Keventer Ltd. We were very much impressed with the foreign breeds of cows with high milk yield. We decided to go in for improving our own cows. It was agreed that Dr. J. C. Ghosh and friends would collect the necessary finance and secure land for the scheme, and that I should give my service free. Pending the acquisition of our own land the work was started in an acre of Government land at Nilkhet adjacent to the Dacca University. The land was given to us on lease which was renewable from year to year. Acharyadev came all the way from Calcutta to Dacca to perform the opening ceremony of our cattle-rearing

farm, which was christened as "Nilkhet Abhoy Asram Dairy Farm". The *élite* of the town was present and Acharyadev made a fervent appeal for the cause of the neglected cow. Acharyadev remained at Dacca for about a fortnight. Every morning during his early strolls he used to come to our farm-house and watch us at work. We procured a number of cows from the Padma side; these yielded a good quantity of milk. Acharyadev attended a large number of meetings held in his honour and in every meeting he spoke about the activities of the Abhoy Asram Dairy Farm. This gave us an advertisement more than we deserved. We could not meet even a fraction of the demand of milk, ghee and butter. The university circle was very sympathetic. Though we were confirmed non-cooperators yet even the officials extended their sympathy to us. We had no land for growing fodder. Vice-Chancellor Langley allowed us to grow fodder on 25 acres of the university land, on condition that the land would be taken back by the university any day they liked. Dr. J. C. Ghosh, Prof. Satyendra Nath Bose, Dr. Meghnad Saha, Dr. J. N. Mukherjee, Dr. Ramesh Chandra Majumdar, Dr. Haridas Bhattacharjee, Rai Bahadur Sasanka Ghosh, Capt. Ganguli and other friends liberally contributed to the capital of the farm. The management of the farm was something like a scientific research work. The contributors were warned that they might lose all the money they invested, so they should not contribute in the expectation of a good return. This naturally made them hesitate, and in three years' time only less than ten per cent of the necessary amount could be raised. As regards finding our own land the proposition was still more difficult.

The question of finance, however, did not worry Acharyadev very much. For though everybody did not pay the stipulated Rs. 1000/- per head, Dr. J. C. Ghosh, Prof. Satyendra Nath Bose and others, however, paid more than Rs. 1,000/- each. Moreover, we developed our business side admirably by importing fresh cream from the interior villages where cow's milk was plenty, and by preparing and supplying butter to the gentry at a very good price. The profit in business more than counterbalanced the loss in cattle-breeding.

But Acharyadev was very much worried about the question of our own land. Like a prophet he said: "The whole thing will tumble down if your Dacca patrons cannot find land for you. Do not forget that you are not in the good books of the police. This work cannot be carried on for long on the Government land."

Acharyadev's prophecy soon came to be true. The political atmosphere of the country rapidly changed. Every one was fed up with the council politics. Even Motilalji, the Swarajist leader, felt very much disgusted and did not hide his disgust. Everybody began rethinking of civil disobedience and of its grand architect, Mahatma Gandhi. The resolution for complete independence was passed at the Lahore Congress at 12 mid-



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night on December 31, 1929. Sunday, January 26, 1930, was fixed as the Purna Swaraj Day all over India. At the command of the Congress many members resigned from the legislatures. Nētaji and Sardar Patel were arrested. Gandhiji wrote his memorable letter to the Viceroy and started for violating the salt law at Dandi. He left Sabarmati Asram with 79 co-workers never to return back till Swaraj was attained. A wave of enthusiasm swept the country. From Lahore I went straight to Dr. J. C. Ghosh at Dacca. Rapid decision was taken about the Abhoy Asram Dairy Farm at Nilkhet. We correctly read the signs of the times. Already the temper of the executive authorities was very much frayed because we hoisted the National Flag in our farm. We were bluntly told that such things would not be tolerated on Government land. Apprehending trouble Dr. J. C. Ghosh and other patrons advised us immediately to sell off all our assets including the entire herd of cattle by public auction. Within seven days of this we carried out their suggestions. Once again Acharyadev gave us his blessings; he fully supported our move of winding up our work on the Government land. The sum obtained by this auction sale was placed in my hand; it was evidently meant to be spent for the ensuing movement. For the selfsame purpose Acharyadev himself placed another good sum in my hand. At this time I shifted my venue of work from Dacca to my own native district of Nadia. Acharyadev introduced me to the proprietors of the Mohini Mills at Kusthia. Those were the days when the rich and the poor combined in fighting the British Raj. The proprietors of the Mohini Mills were ardent patriots. They made substantial contribution to the cause through Acharyadev. This they did every year so long as Acharyadev was alive.

Gandhiji violated the salt law at Dandi on April 6, 1930. The movement spread like wild fire from one end of the country to the other. There were lathi charges, firings, indiscriminate and illegal tortures all over the country. These shocked Acharyadev very much. He wondered why a civilized Government instead of arresting people for violation of the salt law, should illegally torture them in so many ways. He was terribly upset when the news reached him that volunteers who went to prepare salt were bodily lifted and thrown into the salt water, and there were some drowning cases too. I kept Acharyadev informed about my movements. I led a batch of students who came marching from Kushtia to Krishnagar for violation of the salt law. I took them to Contai in Midnapore. *The local authorities had declared that henceforth whoever attempted to violate the salt law would be whipped to death. We accepted the challenge, and after giving a written notice to the authorities, we went to violate the salt law. The Viceroy had just promulgated an ordinance reviving the powers of the Press Act of 1910 with certain sinister amendments. Its purpose was to kill the nationalist papers. As a protest all nationalist papers of Bengal temporarily suspended publication. The only means of getting news was cyclostyled Congress bulletins that were being surreptitiously circulated. As our whereabouts after arrest could not be traced, news got



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abroad that we had been whipped to death. This created a great commotion and Acharyadev was simply stunned. He was considerably relieved, however, when the correct news about ourselves reached him in a few days' time. When I came out of gaol Acharyadev congratulated me.

While the Civil Disobedience movement was in full swing, I thought of starting a news-sheet, the *Agnishikha*, as the organ of the Nadia District Congress Committee. It was to be secretly cyclostyled and circulated. The temper of the Government was very bad. It became very difficult to procure the necessary cyclostyle machines. When I acquainted Acharyadev about our difficulty, he readily promised to help us in the matter but asked me to be very careful. He cautioned me by saying, "Beware, even the walls have ears." I approached the managing director of a reputed firm, the Continental Commercial Company, having their Calcutta headquarters at Dalhousie Square. He was a patriotic man of great courage, integrity and sincerity. I took him straight to Acharyadev. He handed over to Acharyadev a donation of Rs. 1,000/-. Acharyadev in his very presence made over the sum to me. The managing director also gave me a number of cyclostyle machines complete with all the accessories. I had not to pay anything for these machines. So, through Acharyadev's kindness we managed to get the necessary funds and machinery for the *Agnishikha*, an organ that enabled us to expose the misdeeds of the then Government during those dark days of repression. In those hectic days Congress offices were searched, sealed and their assets confiscated. Orders under Sec. 144 were promulgated over the whole area, and notices on individuals were served under Sec. 108. There were indiscriminate searches, raids on houses, seizures of printing presses, etc. Householders were imprisoned on the plea of giving food and shelter to Congressmen. Lathi charges, dispersal of public meetings, brutal beatings of non-violent satyagrahis, firings and shootings, setting fire to properties of satyagrahis and their sympathizers, were the order of the day. During this time most atrocious acts were committed by the Government; lives and properties of people were at the mercy of the executives, civil courts having been deprived of their jurisdiction. Even minors were fined and in default the fines were realized from their guardians. Gaols and camps were packed to suffocation. Satyagrahis were sometimes beaten up inside the gaol compound and many died as prisoners. Even women and children were not spared. All these shocked the noble-hearted Acharyadev, but he was equal to the occasion. The Congress was declared illegal, and it went underground. Government failed to locate the offices of the A.I.C.C., P.C.C., D.C.C., etc. Services of the post and telegraph departments were denied to the Congress. So we had to improvise our own postal system, and whether we remained in gaol or outside, we managed to keep it running. Intelligence Branch personnel kept a constant watch over the College of Science, yet we managed to keep our contact with Acharyadev.

In the middle of May, 1934, the Civil Disobedience movement was



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suspended by the Congress. I came out of gaol after a long incarceration. Acharyadev was glad to see me again. He advised me to start a constructive work centre in Nadia. I went to Tehatta police station in Nadia. This was the area where we had carried on our no-tax campaign and where the military had earlier marched in and firing had taken place. I selected a plot of land on the bank of the river Jalangi at Saheb Nagar, eight miles from the railway station at Plassey. The police kept me under strict surveillance and would not allow me or any of my friends freedom to carry on our normal constructive work.

So I went to Acharyadev and told him everything. He expressed his desire to go to my place and to publicly associate himself with our constructive work. On January 5, 1936, Acharyadev actually came to Saheb Nagar and laid the foundation-stone of the Saheb Nagar Krishi Silpa Pratisthan. In those days there was no all-weather motorable road from Plassey to Saheb Nagar. So it proved to be an arduous task for Acharyadev to cover this distance of eight miles. On his arrival at our Pratisthan the first question that he asked was how we could manage to find such a picturesque place, situated on the bank of a river with such crystal clear water. He was in raptures. He confessed that though he was a much-travelled man, he had hardly come across such exquisite scenes of idyllic beauty.

This great patriarch was given a splendid ovation by a gathering of twenty-five thousand people. Rajit Pal Chowdhury, M.L.C., presided over the meeting. Acharyadev categorically declared that the work that was being done at Saheb Nagar was his own, and we were carrying it on in his behalf. At the time of laying the foundation-stone of the Pratisthan he said that the object of this Pratisthan in one word was rural uplift. From that time onward till his death Acharyadev was closely associated with our work at Saheb Nagar.

The Civil Disobedience movement was suspended and henceforth Congress politics became mainly parliamentary politics. The whole of the year 1936 was devoted mainly for making preparations for the ensuing elections. In 1937, elections under the new India Act were held all over India. Acharyadev wanted me to go to the Bengal Legislative Assembly. He wrote an appeal to the people of Nadia in support of my candidature. This had its desired effect and as a Congress nominee I defeated one of the most formidable candidates of the time by a thumping majority. Since 1921, I had been a penniless whole-time worker. Now that I was in the Assembly I had at least an income. The Nadia District Congress Committee, of which I was the President for a long time, however, took away a portion of this income. Nevertheless I could manage to save a good amount for our Pratisthan which was now flourishing vigorously.

In consultation with Acharyadev the Pratisthan was formally registered as a charitable trust under the Charitable Societies Act; it was handed over to a Board of Trustees with Acharyadev as its life President. It was



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a total endowment and I was the endower of the trust. On December 6, 1940, headed by Acharyadev, myself, Prof. Humayun Kabir (who was also a trustee at the time) and other trustees, appeared before the Registrar of Calcutta and signed our names before him. The endowed estate of the trust comprised 134.87 acres of very fertile land. Though from the audit report its price appears to be only Rs. 6,121,66nP., the present value of the land would not be less than a lakh.

The meetings of the trust board were generally held at Acharyadev's place at the College of Science. At Acharyadev's instance we again started the cattle-breeding experiment. The institution was to be run as a model demonstration farm for the benefit of the poor peasants. Meanwhile the Second World War broke out. Gandhiji selected me for offering individual satyagraha. I was to ask the people not to render any help to the Government in prosecuting the war. Naturally I consulted Acharyadev who gladly permitted me to offer satyagraha. I was awarded 14 months' R.I. On coming out of the prison I went straight to Acharyadev who asked me again to devote myself to the work of the Saheb Nagar farm. But my liberty was short-lived. Soon came the 'Quit India' movement. I was arrested and detained without trial. The Government asked the officer-in-charge, Tehatta police station, to search and seal the premises of Saheb Nagar Congress Committee. The police searched and sealed our trust farm. I was in gaol, but those present in the Pratisthan showed the O.C. the registered trust deed and pointed out to him that Saheb Nagar Krishi Silpa Pratisthan was a registered charitable trust; its life President was Acharya Prafulla Chandra Rây; it had nothing to do with the Saheb Nagar Congress Committee. But the O.C. held that the very place where Haripada Chatterjee lived was Saheb Nagar Congress Committee. The O.C. drove away all the farm workers and sealed the rooms. All the 70 heads of cattle were driven away with a motive to misappropriate them. The assets of the Pratisthan including granaries, sheds and everything were looted. Even valuable fruit trees in the orchard were cut down. Prof. Kabir wrote a letter to the authorities and after my release I had a talk with the then Chief Minister, and the Government unearthed everything. A police case was instituted against the O.C. and his accomplices, and they were all sent to prison.

On February 27, 1944, a meeting of the trust board was held at Acharyadev's place at Calcutta. All these incidents were recorded in the proceedings book, which still bears the signature of Acharyadev. Ultimately the then Government paid some compensation to our Pratisthan and to others who suffered because of this looting of properties. From the proceedings book I find that the last meeting of the trust board, over which Acharyadev presided, was held on March 30, 1944. The proceedings bear his signature.

Acharyadev is immortal. Though he is not physically present today his spirit is with us. We are still carrying on his work with zeal and earnestness in the post-freedom period, braving all hazards. We hold that the best way to honour Acharyadev is to carry on his mission.

THE ACHARYA

By KEDARNATH CHATTERJI

I first met Acharya Prafulla Chandra Rây in the autumn of 1908, when I was a teen-aged youth, more keen on games than on learning but imbued, none the less, with a deep respect for the learned. I had heard from my father, who was a friend and admirer of the Acharya, about his profound learning, devotion to the cause of science and paternal solicitude for the training and well-being of his pupils. I was also aware that he had brought to light the lost lore of chemistry of our own ancients, because of the active interest shown by my father in securing material for Acharya Rây's investigations into the records of Hindu chemistry of ancient times. Incidentally it might be mentioned that my father had secured for his use old manuscripts in good condition of some of the ancient treatises, particularly the *Rasendrachintāmani* and the *Rasarat-nasamuchchaya*, from the library of a Nepalese nobleman, Rana Padam Jung by name, who resided at Allahabad.

So when I was asked one afternoon by my father to carry a letter and some books and papers to the Acharya, I was overcome with a mixed feeling of awe and curiosity at the prospect of meeting him. Prior to that occasion I had only had fleeting glimpses of the great man on a few social occasions. Acharya Rây hated parties and social gatherings of the more flippant type and even if he were forced to present himself at one, he lost no time in making himself scarce at the first opportunity. I set out, therefore, to act as a messenger, with a light heart. On arrival at 91, Upper Circular Road, I was ushered into a room with the plainest of plain furniture and masses of books and papers everywhere, which two young men—his pupils—were going through evidently in search of some reference. They were being directed by an elderly gentleman seated at a table who looked up with a smile that transformed his very homely face with a charming expression, at my approach. Clad in a striped twill shirt of the ready-made variety and a short mill-made *dhooti*—these were before the days of khadi—with unkempt hair, rough-trimmed beard and with prominent nose and big teeth, his frail person seemed to be lit up by the glow in his deep-sunk and tired-looking eyes. Acknowledging my deep salute with a nod he took the letter from me and, after opening and putting it on the table, he held my arm in a friendly grip while reading it.

One of the students remarked that they had been set a hopeless task

by "Sir." There was a quick glance and a short burst of amused laughter from the preceptor and then again the perusal of the letter and the search after the elusive reference went on in silence. Presently, he looked up and asked me whether I could wait for an answer and on my replying in the affirmative, he set to writing it. Soon there was an interruption from the other student, who had evidently found what was being searched for, and was being sarcastic now at the expense of the other. The professor laughed heartily, the other two joining him freely. To my unsophisticated eyes, it seemed as if an indulgent uncle was enjoying a joke with his favourite nephews. Then he looked at me for a moment and turning to his students asked one of them to take a rupee and fetch some *rosogollahs* to refresh the son of a Brahmin standing at his side. Needless to say, the order was executed with promptitude and the logical sequences followed, though the professor himself did not partake of the sweets.

This was my first meeting with the "Father of Modern Chemistry in India"—as he was called by Professor F. G. Donnan, D.Sc., F.R.S., of the University College of Science, London, some years later. The impressions I gathered were only enhanced and strengthened in the course of long years of close contact that followed. I never had the privilege of studying under him, but all the same I had the opportunity of coming closely in contact with him, because of the friendship that existed between him and my father—and because of the natural fatherly and friendly bent of his personality towards all young people that came near him.

His mission in life was the furtherance of the future well-being of his people and his mother country and chemistry was his chosen vehicle—though not the only one. Those who know how enthusiastically he took up the cult of *charkha* and khadi late in life, those who can testify to the very large sums that he freely gave as a gift to one of the "fighting" dailies to save it from extinction, and those who remember his pleasure and zeal in supporting any new Indian venture—be it an insurance company or be it a large engineering concern—will all bear witness to that.

Of course he was devoted to science—and to the care and teaching of those who wanted to follow the same path. He was the one professor in India who in his time successfully formed a chain of disciples versed in the advanced methods and techniques of research in modern chemistry. These disciples were linked to him—as is well-known—with bonds forged not only through learning but likewise through affection and respect. What is not so well-known is that his care and concern for his pupils was not confined to the successful ones. The number of those, who failed to achieve success in their academic career and later were helped by Acharya Ray to make their way into life through other paths, is by no means inconsiderable.

I shall leave it to others, better qualified than me, to narrate his



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achievements in science, and content myself with saying that the goal he sought through a life-time of tireless work was neither personal gain nor self-glory. He was very proud of the achievements of his pupils and lost no chance in pressing forward their claims for recognition and reward. The ancient Sanskrit saw that declares that one should seek for victory in every quarter but from disciples one should wish for defeat was very often and very sincerely repeated by him. The lack of facilities and the meagreness of the University grants for chemical research were a long-standing grievance with him and some of the most trenchant editorials written by my father were the consequences of conversations between him and my father. But in all of these the emphasis was on the question of facilities for the research scholars, who were working under his direction and for whose future he was deeply concerned.

Plain living and high thinking has been held up before us as the ideal for all who aspire for intellectual uplift and Acharya Rây's life has been the most frequently cited example of that precept, during his lifetime. But few knew the extent of self-denial—enforced by his charities—that lay behind the austerities he practised. This self-denial was likewise self-imposed, as according to our standards of living, he had ample means for sufficiency in the matter of necessities of a comfortable life for a bachelor, which he was. This was all the more remarkable because he had a frail body and a weak constitution, dyspepsia, insomnia and dysentery being chronic in his case, all along his long life.

The late Dr. Rashbehari Ghose, the eminent lawyer, who was a friend of his, went to see him sometime in 1907, on hearing that he was ailing. The Acharya was suffering from dysentery and it was apparent that he was lying in discomfort, on a meagre bed made on an iron spring cot. Dr. Ghose, who himself was used to living like a prince, was shocked and remonstrated against this outrageous disregard for bare necessities, essential for the well-being of an invalid, particularly where the sufferer had the means to afford all that and more. On this, Dr. Rây asked a student who was there to fetch and show his account-book to Dr. Ghose. "It was seen then that barely an eighth part of the Acharya's income was reserved for his personal expenses, the rest being devoted to charities. Dr. Ghose is said to have remarked: "I ought to touch your feet, Prafulla, but I will say that you are shortening your life by these austerities."

Needless to say, Acharya Rây paid no heed to the remonstrances of his friend. He went along his chosen way of life, unassuming and uncomplaining to the end of his long life. And it was because of this that his countrymen responded to his call for help and aid in times of stress like that of the Khulna famine of 1921 and the North Bengal flood of 1922.

His intellectual interests were manifold, as is well-known, but a special corner of his heart was reserved for Bengali literature. He did not venture



very far into literary pursuits, but he maintained touch with contemporary writers and was closely associated with the premier Bengali literary association, the Bangiya Sahitya Parishad, being elected as its President three times.

I remember the occasion on which he gave the welcoming speech to the visiting delegates to the Prabasi Bangiya Sahitya Sammelan, which was held in Calcutta that year at the invitation of the Bangiya Sahitya Parishad. It was no flamboyant peroration, full of elegant flowers of speech, but the sincerity of the words of welcome, by which he expressed his gratification at being able to greet so many devotees of Bengali literature, was so apparent and his deep interest in the forward march of Bengali literature was so pronounced, that even the most cynical amongst the audience could not help being moved. I was sitting next to an elderly couple, who had made a long journey to attend the Conference. When the speeches were over the lady remarked that Acharya Rây's welcome was well-worth the troubles of a long journey and the inconveniences of a short visit to a crowded city.

I shall conclude by recounting the memories of the last occasion on which I heard the hearty laugh that was so characteristic of this Acharya, deep in learning, austere in life and yet so simple and charming on close acquaintance.

One afternoon in the early days of the last War (I believe it was at the end of 1940) I received a telephone call from Shri Suresh Majumdar of the *Ananda Bazar Patrika*. He informed me that Acharya Rây's illness (he was down with pneumonia) had reached a critical stage and the doctors were unable to get any response to their drugs and injections. I hurried to the Science College and in company with Suresh Babu and Dr. Jyoti Prakash Sircar went to the room where he lay, apparently in a comatose or unconscious condition. The frail body had shrunk to a diminutive size and the humours and mobile face was like a death-mask. On our asking the attending doctor in a whisper about the patient's condition, he spoke out loudly that there was little response and the picture was not very bright.

Dr. Jyoti Sircar then remarked aloud that just a few weeks back he had come to see Acharya Prafulla Chandra. On being asked as to how he was, he (the Acharya) had replied : "The three of us, Rabindranath, myself and Nilratan (Sir Nilratan Sircar) came to this earth about the same time. Now Rabi's body is collapsing though his head is still clear. Nilratan's body is fairly sound but his head has gone fuzzy (Sir Nilratan had had cerebral haemorrhage shortly before). And, as for me, I never had much of a body and now my poor brains are getting addled."

Dr. J. P. Sircar had imitated Acharya Rây's quizzical tone and pro-



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nunciation in repeating the last part of his remarks. We were on the point of smiling when we were startled to hear the loud, hearty laughter that all of us knew so well. The doctors hurried to the patient, who was now slowly asking, in a low but clear voice, "Is that Jyoti, Jyoti Prakash?"

Dr. Jyoti Sircar hurried to him and said "Yes, here I am. How do you feel, Sir?"

The reply was "Hunh? Just the same, as I told you before," and this with the faintest of a faint smile. My friend Suresh Majumdar—who has since then departed from amongst us—signalled to me to come out. Out of the room he said "Let us go. He is going to be with us for some time more, judging by that laugh."

About three and a half years later—almost exactly three years after the passing away of Gurudeva Rabindranath—on June 16, 1944, came the final day of departure of another of the *Maha Gurus* of Bengal, one who by his saintly and austere life, childlike sincerity in dealing with his fellow human beings, and paternal devotion to the cause of the advancement of his pupils, had set an inspiring example of what an Acharya should be.

He was the last of a small group of Titans who had broken the spell of inferiority induced into us Indians by the magic and dazzle of Western advancement into the field of cultural and intellectual progress. In a way he was the most successful amongst them all, for he formed and established on firm foundations Indian school of researches in the fields of chemistry.

ACHARYA RÂY AS A MAN OF LETTERS

By R. K. DAS GUPTA

Admiring Acharya Rây's intellectual accomplishments Dr. H. E. Armstrong¹ said: "In type (he) is perhaps more like a Frenchman than an Englishman: the nearest comparison I can make is to contrast him with Berthelot, not only a many-sided chemist but also an agronomist, man of letters and politician." Coming from a British scientist it was an unusual tribute, for it was not only a recognition of Dr. Rây's worth as a scientist but also a recognition of his worth in other fields. Perhaps it is particularly important as an appreciation of his work as a man of letters. We need to recall this appreciation if only to tell the present generation that the father of Indian chemical science possessed a fine literary culture and wrote a few things of considerable literary value.

Dr. Armstrong made a few points about Acharya Rây's literary abilities which we must make again and make with greater force at a time when such abilities are normally considered irrelevant in a scientist. Armstrong said that "of distinguished literary parentage, his own early English training was literary in a way unknown even to Englishmen." He said even more: "Not a few English chemists have had an early so-called classical training in Latin and Greek. I do not know of one who also had an English training such as Rây enjoyed. He writes a perfect English. What is striking in him is the completeness and breadth of his modern outlook, as opposed to the confined, purely classical, retrograde outlook of so many English literary scholars: we may learn a valuable lesson from him in this respect." And he did not forget what we have perhaps forgotten today that "his intention was to remain a literary student. Foreseeing, however, that the future progress of India was bound up with the pursuit of scientific enquiry, he allowed himself to be gradually tempted away from literature and history, although he continued the study of economics and politics."

There is, however, an error in an estimate like this. If at all we are to judge Prafulla Chandra as a man of letters we must not judge what he failed to become for having left literature for science but judge what he actually achieved in letters even as a scientist. And if we discover anything of literary value in any part or aspect of his achievement, it must

¹ Henry E. Armstrong, *The Future of Chemistry in India, Acharyya Ray Commemoration Volume*, ed. Hirendra Nath Datta, 1932, pp. 9-11.



not be thought to be the fruit of the intellectual recreation of a man of science. It was really the outcome of the intellectual exertion of the whole man. Prafulla Chandra was a man of letters because he was essentially a humanist. He did not talk about literature in a fashionable manner or by way of claiming a reputation for versatility. His love of literature was a part of his pursuit of knowledge and since by knowledge he understood an expansion of intellect for the good of the community he was determined to avoid the illiteracy of the specialist.

Prafulla Chandra's humanistic spirit determined his methods of social reorganization and like the humanists of the European renaissance of the sixteenth century or of the Bengali renaissance of the nineteenth his methods demanded a many-sided cultivation of the intellect, an amplitude and vigour of the mind which alone could define and fulfil the highest social purpose. Perhaps it is yet to be understood that Prafulla Chandra had in him a much larger measure of the intellectual passion of the nineteenth century than any of his contemporaries in this century. His scrupulously patriotic raiment concealed an intellectual habit which was absolutely uninhibited by nationalism. He detested parochialism in thought as strongly as the most determined exponents of English education in the last century. In the political atmosphere of the early thirties it was not indeed easy to keep intellectual pursuits above patriotic passion. He did it and he did it with a courage which few of us could muster today. Summing up the intellectual history of India in his beautifully written autobiography, *Life and Experiences of a Bengali Chemist*, he remarked: "Hindu intellect came to be under the domination of scholastic philosophy and revelled in the dialectics of the schoolmen and a sort of learning was in vogue under which, to quote the happy words of Buckle, 'the more learned the votaries were the more ignorant they grew....' Macaulay's famous minute (1835) was in no small measure responsible for the intellectual renaissance of India, however much neo-Hindu revivalists may take offence at some of the passages in it. The victory of the Anglicists over the Orientalists ushered in a new era in the history of modern India."² The whole chapter on "Intellectual Renaissance in Bengal" in this book is indeed one of the finest résumés of our mental evolution: it may now be of some use as an antidote to intellectual swadeshi. Fairly well-read in European history he had a remarkably clear perspective of the complex processes of intellectual growth. That perspective kept him away from all forms of narrowness in the sphere of ideas. In many ways he was an inheritor of the liberal tradition of Raja Rammohun Roy and a late exponent of free thought in Bengal. At the beginning of this chapter he quotes from Raja Rammohun Roy's famous letter to Lord Amherst in which opposing the foundation of a Sanskrit College in Calcutta he said: "..... the Sanskrit system of education would be the best calculated to

² *Life and Experiences of a Bengali Chemist*, 1932, pp. 141-42. There was a Bengali edition of this work in 1937.



keep this country in darkness."³ At a time when our patriotic instinct prompted us to glorify everything Indian, Prafulla Chandra had the boldness to say that the "Hindu intellect had become dull and benumbed."

As one who made an important endeavour to regenerate the Bengali mind Prafulla Chandra wanted to show how dead that mind had been for centuries. When many others were stirring our patriotic imagination with pictures of our great past he was clear-sighted enough to say that such pictures were fanciful. And how bold he could be in saying this we can see from his Bengali essay "*Bāṅgālir Mastishka O Tāhār Apavyāvahār*".⁴ Perhaps Bacon was not half so contemptuous of the scholastics as Prafulla Chandra of the medieval logicians of Bengal. He repudiated the whole achievement of our medieval scholars as unreservedly as the leaders of the European enlightenment repudiated the achievement of Duna Scotus or of Peter Lombard. He called it inane, a symptom of intellectual decadence: "I think those who, depending on the opinion of Bhudeb and Bankim, take pride in the glorious achievement of the Bengali or even of the Hindu intellect are ignorantly supporting erroneous views."⁵ He asked this plain question: "To preserve ourselves as a nation in the world of today, should we take our lessons from the school of Raghunandan and Kullukbhatta and again drown ourselves in disputations on Sankhya or should we follow the light of knowledge of the twentieth century?" Those who are now at all concerned about the decay of thought in our country and are eager to reflect on the course of our intellectual history in the last thousand years ought to consider Prafulla Chandra's judgement on that history in this essay: "The history of thousand years shows that the Indian is now lying prostrate like a benumbed opium-eater. If you study the history of the world you will find that when a race thus declines it develops an exaggerated respect for the past and loses all faith in its own power."⁶

This liberal outlook was largely the result of Prafulla Chandra's school and college education. As a student of the Hare School he read an amount of philosophy and history which would be amazing in a university student. When he left school he had read Renan and Strauss on Christ, the works of Martineau and Theodore Parker, had acquainted himself with Indian history and pored on the best of the English classics. One who was taught English by Krishna Behari Sen in Albert School and by Surendranath Banerjee in the Metropolitan Institution soon acquired skill in English writing and a taste for literary studies. Giving an account

³ *ibid.* p. 140. Rammohun's letter is dated 11 December 1823; see the *English Works of Raja Rammohun Roy*, Allahabad, 1906, pp. 469-474; S. D. Collet, *Life and Letters of Raja Rammohun Roy*, 1913, pp. 103-4.

⁴ *Acharya Prafulla Chandra Rāyer Prabandha O Baktritabali*, 2nd ed. 1929, p. 3. The essay was written in 1909 and published in the *Suprabhāt* the same year. An English rendering of *Bengali Brain and its Misuse* appeared serially in *The Bengalee* in 1910, was issued as a pamphlet the same year and was included in the author's *Essays and Discourses*, Madras, 1918, pp. 181-212.

⁵ *ibid.* p. 2.

⁶ *ibid.* p. 8.



of his fairly wide reading in English literature and history he remarks in his autobiography: "I refer at some length to this period of my life and to the taste I acquired for English literature, including history and biography, because within the next two or three years I was called upon to make my choice between literature and science and had to forego the claims of my first love and vow allegiance to a jealous goddess who cannot brook half-hearted devotion in her votary?"⁷

But actually the jealous goddess did not take away his literary abilities: he was allowed to use them in her worship. The *History of Hindu Chemistry* is a scientific achievement made by a man of considerable literary scholarship. And how remarkable was his capacity for acquiring such scholarship even as a student of science is shown by his pamphlet *India Before and After the Mutiny*.

This was written for an Edinburgh University prize which it missed very narrowly, one of the examiners called it "a bitter diatribe against British rule", but the Principal of the University, Sir William Muir, referred to it and other essays in his inaugural address as "work bearing marks of rare excellence". Prafulla Chandra published it at his own expense and sent a copy to John Bright with a covering letter drawing his attention to the annexation of Burma and the additional cost thrown upon the Indian tax-payer in the shape of increased duty on salt. Bright's interesting reply was published in the *London Times*.⁸ The style of this tract would be remarkable for an able English writer. In an Indian undergraduate doing a science course in a foreign university it was simply astounding. Any passage from it will pass as a specimen of forceful political prose: "Is there no golden mean between stubborn denial.... and humiliating surrender....? These are strange times we live in. An institution seven centuries old becomes in the course of as many days branded as a 'nest of sinecurists.' Who knows, tomorrow another Howorth will have to denounce in equally unmeasured terms the India Council and a dozen other obnoxious bureaus? Compromises and half-measures and halting policies have been tried elsewhere with signal failure. 'Fifty years of concessions to Ireland' have only served to embitter her feelings against Great Britain. Will this lesson which the sister island has taught us be lost upon India?" The Scottish press admired the work. The influential *Scotsman* said: "It is a most interesting little book. It contains information in reference to India which will not be found elsewhere and it is deserving of the utmost notice."¹⁰

⁷ *ibid.* p. 44.

⁸ *ibid.* pp. 63-64. One of the two examiners was Sir William Muir (1819-1905), formerly Lt. Governor of N.W.P., Vice-Chancellor of Edinburgh University and the author of *Life of Mahomet*.

⁹ *ibid.* p. 66.

¹⁰ *ibid.* pp. 66-67. It is indeed a pity that a copy of this work is not preserved in any of our public libraries. It is certainly worthwhile to obtain a photocopy from the British Museum for the National Library.

This interest in literature and history created in him a passion for comprehensive knowledge which resulted in the *History of Hindu Chemistry*. It is indeed in many ways a monument of literary research. In its handling of large and intricate mass of sources there is a discipline in presentation which can be expected only of a scholar of literature, philosophy and history. We must bear in mind that a work such as this is something more significant than a historical one. It is prompted by a desire to organize knowledge on a vast scale, to discover links between different aspects of ancient wisdom and to comprehend the whole thing as a picture of the growth of ideas. It is in this sense an important contribution to the history of civilization. The desire for such comprehensive knowledge is peculiar to leaders of an intellectual renaissance. A positivistic mind, in particular, would be keen to reflect on the progress of knowledge if only to consider its possibilities. When Joseph Glanvil produced his *Plus ultra* or the *Progress and Advancement of Knowledge* he was prompted by a desire such as this. Whewell too wanted to do the same thing in his *History of the Inductive Sciences and Philosophy of the Inductive Sciences*. And it is no small tribute to the Bengali intellect of this century that at least one scientist gave his attention to the history of his special branch of knowledge as it developed in his own country. When Masson wrote his *Three Centuries of Chemistry*, he could handle source materials which a chemist could handle without having to tread on domains other than his own. But Prafulla Chandra had to acquire knowledge of Sanskrit, of the different schools of Indian philosophy and of Indian literature to reconstruct a history of Hindu chemistry.

Wide range of interests is generally a mark of an acute and active intellect. Prafulla Chandra's autobiography is the product of a mind which is keen to grasp the whole background of Bengali life as it appeared to a scientist and social thinker. There is not a page in this work which is tainted by the superficiality of the dilettante, not a word which does not say something that he really meant. To some of us his quotations may seem too many and at times too long. But his purpose was to produce a useful document rather than a private diary. He is telling us about his life and experiences in their bearing on the history of Bengal in his time.¹¹

His idea of intellectual accomplishment of a well educated young man is to be found in his Bengali address on *Pathāgār O Prakṛita Shikshā*. Exhorting his young listeners to extend their range of reading he said that for a complete mental culture they must give equal attention to literature, history, philosophy and science. And he was indeed so unhappy about the intellectual narrowness of the specialist in science that he was at times pretty harsh in criticizing it. In this address he said: "Those who are engaged in special investigation, that is, those who are becoming specialists

¹¹ Reviewing the book *Nature* said: "From beginning to end, the message of the book is one of the highest endeavour, pulsating with vitality and intellectual force". See the last page of *Atmacharit*.

sometimes cause me great anxiety As the tanner thinks there is nothing like leather, the specialist thinks that his subject is the only thing that matters I have a pupil whose reputation has reached Europe. He is a specialist and a D.Sc. When I told him that the Bengal Chemical and Pharmaceutical Works was my daughter and my students were my sons and that in my old age my condition would be like King Lear with Cordelia, Goneril and Regan, he asked me—'Who are they?' "¹²

Prafulla Chandra himself was very well read in Shakespeare. His articles on Shakespeare published in the *Calcutta Review* may not be a contribution to Shakespearian criticism, but they are certainly of considerable interest as the response of a Bengali scientist to the greatest of English poets. *

What is really amazing about his knowledge of Shakespeare is that he could make his words a part of his mental furniture and could quote him with ease to give force to his arguments.

His readings in Shakespeare and other English writers gave him a sense of English words which any seasoned professor of the language might envy. In England he had heard some of the finest of English orators like Bright, Gladstone, Rosebery and Balfour. And his criticism of the English eloquence of Indian speakers is perhaps the best ever made by a Bengali. In these later days of indifferent public speaking and at a time when in our public bodies shouting is preferred to eloquence as an instrument of persuasion, Prafulla Chandra's remarks on the Indian orators of the last century are worth remembering: "Of the Indian political leaders, Lal Mohan Ghosh had a rare gift of eloquence. He was bereft of mannerism which characterized the oratorical outbursts of Surendra Nath. But Surendra Nath was the idol of young Bengal and his emotional appeal with thundering oratory had a wonderful effect on the sentimentality of our young men. His memory was highly retentive. As President of the Indian National Congress held at Poona the address he delivered was a marvellous performance. He spoke for three long hours without pause or hesitation and without even caring to look at the printed copy in his hand.

"Gokhale was no orator but his fluent speech was profuse in facts and figures. Master of statistics, he never indulged in sentimental effervescence. In his precise pigeon-holed mind there was no room for hesitation about conclusion because there was no room for doubt of facts. He understood the value of brevity and was always compact as an essay of Bacon. While

¹² *Acharya Prafulla Chandra Râyer Prabandha O Baktritâbali*, 2nd ed., 1929, pp. 271-272.

* Acharya Rây's articles on Shakespearian "Puzzle", published in the *Calcutta Review* after 1931 have a special interest in that they showed the Acharya retaining his love for Shakespeare and interest in the study up to an advanced age. It prompted him even to write a critique.—Ed.



Surendra Nath made an appeal to the heart, his was an appeal to the intellect. Ananda Mohan Bose, another great founder of Indian Nationalism, was the despair of his reporters—the flow of his words was simply torrential. He was a bit diffuse and verbose Keshab Chandra Sen . . . was the type of a poet-prophet in the pulpit, and surrendered himself with emotion and soared with wings. He never argued; he proclaimed thrilling tidings of a new dispensation.”

Prafulla Chandra's remarkable mastery of English gave a quality to his Bengali writing. The Bengali style of Acharya Jagadis Chandra Bose is that of a finished writer. But the style of Prafulla Chandra has a distinction which perhaps many have forgotten today. It has the simplicity which marked his personality and habits of life. He wrote with a clarity and a force because he wrote with a passion and a will. His prose has the orderliness of an orderly mind. And above all it was the prose of one who wanted his words to produce some useful action. Most of his Bengali writings are about social and educational matters. But if he would have given time to literary writings he would have produced something eminently readable. This we can infer from his essay on Krishnachandra Majumdar. This short piece of a little over five pages is an example of his skill in critical writing. As a poet Krishnachandra was influenced by Hafiz and so an estimate of his work raises the question how far a creative genius can borrow from others without losing originality. Prafulla Chandra poses the question by quoting a few sentences from Rajnarain Bose's *Bānglā Bhāshā O Sāhitya Bishayak Baktrita* where Mukundaram uninfluenced by any foreign poet is called superior to Michael Madhusudan Datta who was so much indebted to European poets. He then proceeds to prove that in poetry there is such a thing as creative assimilation of sources and a borrower is not the less original because of his borrowings. He mentions Chaucer and Shakespeare as two great poets who were also great borrowers. He points to the influence of oriental literature and philosophy on Emerson and then affirms that Fitzgerald's translation of *Omar Khayyam* is after all an English poem. The point he makes is a fine critical one and the best of English critics have not said anything profounder on the question of the influence of one poet upon another.

Another piece showing his powers of literary appreciation is his essay on Rabindranath Tagore in *The Golden Book of Tagore*.¹² This tribute to the poet is particularly valuable for what it says about his nationalism and internationalism. “If Surendranath Banerjee represented the practical side, and Bipin Chandra Pal and Aravinda Ghosh the passional side, Rabindranath Tagore incarnated the idealistic side of Indian nationalism Growing sick of the aggressive and exclusive type of nationalism, he began to pine after international fellowship, to realize

¹² The essay appeared as a foreword to Indraprakash Banerjee's Bengali biography *Krishna Chandra Majumdarer Jiban-charit*, 1911.



the essential solidarity of mankind, and to preach the gospel of universal humanity."¹⁴

The technical institutions of today provide instruction in the humanities and it has now been realized by universities throughout the world that scientists and technicians should possess a minimum knowledge of the liberal arts, at least of literature and history. But it is extremely doubtful if instruction of this kind alone and a test which a clever boy will know how to face successfully can really stimulate love of a humane culture and interest in the things of the mind. Such refinement is very largely a question of temper and if at all a temper can be created it must be created very early in one's education. Those amongst us who intend to look to this side of education will find in Prafulla Chandra a cheering example of a man of science whose life and work bear the mark of an excellent literary culture. In an age when the most important fruits of scientific research do not seem to go well with the highest ideals of humanism it may be worthwhile to reflect on the achievement of an Indian scientist to whom science was only one of the arts of a rich and well fulfilled life.

¹⁴ *The Golden Book of Tagore*, Ramananda Chatterjee, ed. 1932, pp. 206-7. For Rabindranath's appreciation of Prafulla Chandra's literary abilities, see his letter to him printed elsewhere in this volume. Prafulla Chandra's Bengali article on Rabindranath included in *Jayanti-Utsanga*, 1931, pp. 49-53, is a translation of this essay.

REMINISCENCES OF AN OLD PUPIL

By BIRENDRA NATH DE

On this auspicious occasion of the birth-day centenary of Acharya Prafulla Chandra Rây, we all pay our humble homage of love and regard to this distinguished son of India. When he was born, soon after the quelling of what is known as the Indian Mutiny of 1857, India was passing through an unprecedented deep wave of depression in the wake of the persecution and humiliation at the hands of a foreign Government. It is a well-known adage that when the night is the darkest, the dawn is not far off. Accordingly, soon after the Mutiny, there appeared on the horizon some of the ablest and most patriotic sons of India of whom she is justly proud. The period is hence aptly styled as "the age of Giants" by Dr. Kali Das Nag in his article in the February, 1960, issue of the *Modern Review*. Prior to that, the field had been partially prepared by another group of gifted Indians headed by Raja Rammohun Roy, Ramakrishna Paramhansa, Swami Dayananda and others.

All these noble sons of India, endowed with high mental and moral stamina, by the dint of hard toil disregarding extreme sacrifice and suffering, sometimes even insult and humiliation, laid the foundation of a revitalized and reawakened India of today.

In the field of science, Acharya Prafulla Chandra Rây is regarded as the father of modern chemistry in India. His work as a man of science may be classified under four broad heads :

- (a) His chemical discoveries and original researches by the right of which he takes a recognized place among leading chemists in the world. Appreciative remarks by Roscoe, Divers, Berthelot and others (p. 114) and by Sir William Ramsay (p. 174) of his autobiography may be referred to in this connexion.
- (b) His masterly treatise entitled the *History of Hindu Chemistry*; highly appreciated in foreign chemical journals, e.g. *Knowledge*, March 1903 and also in England, France, Bohemia, Germany and Italy (pp. 120-122).
- (c) Establishment of the Bengal Chemical & Pharmaceutical Works. He had to work hard for over 15 years to overcome almost



insurmountable difficulties before it could be registered as a limited company in 1901 (pp. 92-111).

- (d) Training given in his laboratory to a band of young, enthusiastic and talented chemists, too numerous to name, to carry on the work he had begun. Special mention may be made of some of his favourite pupils—Rasik Lal Dutta, Meghnad Saha, J. C. Ghosh, N. R. Dhar, J. N. Mukherjee, S. N. Bose, P. C. Guha, and P. Rây, who by their original chemical researches earned fame for themselves and enhanced the reputation of Indian chemists (pp. 166-195).

As regards his achievements in chemistry and other subjects of specialized knowledge, it would be presumptuous on my part, as a lay man, to add to the encomiums bestowed on him by persons capable and competent to speak with authority on the subject. I would now turn to the various aspects of his noble character, as a human being, as a teacher, as an organizer, and as a social worker.

I had the good fortune of taking lessons sitting at his feet in the Presidency College from 1898 to 1902 and I take this opportunity of associating myself with every word of praise showered on him by the students of the college on the occasion of his retirement from that college in September, 1916. I give below a short extract from the address presented to him :

"Yours was, Sir, indeed no small achievement. Your way of life, with its distinct Indian traits, recalled us to the sweet and simple and manly days of Indian attainment. You have been to us all through a guide, philosopher and friend. Easy of access, ever-pleasant, ever-willing to help the poor and needy students with your counsel and your purse, living a life of sturdy, celibate simplicity, with genuine patriotism, not loud but deep, you have been to us an ancient *Guru* reborn, a light and an inspiration from the treasure-house of old Indian spirituality" (p. 189).

I shall now proceed to relate how I myself received inspiration from his way of life and also from his teachings.

I received my early education at the Midnapore Collegiate School and having passed the Entrance Examination in the first division I joined the 1st year F.A. class in Midnapore College towards the end of June 1898. On the publication of the list of scholarship-holders in August 1898, it was found that I would be awarded a scholarship of Rs. 20/- p.m. having stood 8th in order of merit of successful students and that I also secured the first place in mathematics having scored 152 out of 160 marks. On the advice of the then teachers in the college and also of friends and well-wishers, my revered father and grand-mother, who looked after my



education, decided, in spite of our financial difficulties, that I should go to Calcutta to prosecute my studies so that I might come in closer contact with teachers and students of a high mental calibre. I joined the Presidency College (1st Year F.A. class) in September, 1898 and became a boarder in the Eden Hindu Hostel. On the advice of the fellow boarders of my own and adjoining rooms, most of whom were holders of senior scholarship and who achieved distinction in their respective spheres in later life, I took the first opportunity to call on Prof. P. C. Rây who had the reputation of giving helpful advice to students coming to Calcutta from the country-side. Dr. Rây was then living at 91, Upper Circular Road in a small room. When I went to see him, he was inside the small bath-room, which was a portion of his bedroom separated by a wooden partition. He asked me to come to him in his bath-room. To my utter amazement, I found him a lean and thin man in his loin cloth, washing his clothes while speaking to me. This incident made an ineffaceable impression on my mind regarding the greatness of the man who had been educated in Europe, holding a doctor's degree—a distinguished Professor of the Presidency College—drawing over Rs. 400/- a month (a substantial sum in those days). As even the boarders in a hostel and students' mess would in those days deem it derogatory to wash their own clothes, I felt myself humiliated, but at the same time learnt my first lesson on 'plain living and high thinking', and on the dignity of manual labour, which he hammered into our brain throughout our college career (p. 176). He shared with Mahatma Gandhi the common devotion to asceticism (p. 126) and demonstrated in a practical manner that truth lived is a far greater force than truth merely spoken (p. 128).

Whenever I went to see him, I found him hard at work. A glance at the record of his daily routine and extracts from his diaries reproduced on pages 212 to 215 will convince one how hard he worked and how usefully he occupied his time. Some of his observations will bear repetition.

"When work is coupled with a keen sense of enjoyment, it does not tell upon one's health" (p. 106).

"Work, i.e. congenial work, is pleasure" (p. 213).

"Spasmodic efforts have never been congenial to my nature. Whatever I have done I have done by slow, persistent, and systematic methods" (p. 215).

"Desultory reading has had no charm for me" (p. 216).

"One should be self-contained and contented" (p. 219).

"Envy and malice rob one of contentment" (p. 220).

"It is the lazy and indolent and unmethodical who complain



of lack of time to attend to everyday routine work, not to speak of urgent matters" (p. 221).

"There is never a moment, except when I am asleep, that I am not joyfully occupied" (p. 226).

"There is no time left for social intercourse with my many intimate friends" (p. 226).

"I have not lived an aimless life. Whatever field I have ploughed I have ploughed as an humble instrument in the hand of Providence: my failures are my own" (p. 541).

"I have no sense of success on any very large scale in things achieved. But I have the sense of having worked and of having found happiness in doing so" (p. 541).

It is indeed an extraordinarily surprising fact that he, a man of poor physique and a permanent valetudinarian since he attained the age of 14 (p. 31) and a victim of insomnia for over half a century (pp. 115 & 227), could work so hard and achieve so much success in life.

As regards the system of his teaching, he has left the following on record: "Throughout my 27 years' career at the Presidency College, I made it a point to lecture mainly to the junior classes. Boys coming fresh from High Schools are very teachable as they represent so much clay in the potter's hand to be moulded into the desirable shape. My lectures were never based upon any particular text-books" (p. 304).

In our student days, chemistry was a compulsory subject for all students in the F.A. (now I.A. and I.Sc.) class. Dr. Rây used to give lectures in the 1st and 2nd Year F.A. classes and to the Pass Course students in the 3rd Year B. Course (now B.Sc.) and also to supervise the practical work of the Chemistry Honours students in the 3rd and 4th Year B. Course classes. From my own experience I can assert with confidence that his lectures were always impressive and instructive, and sparkled with humorous anecdotes and stories interspersed with the recital of important episodes in the lives of world-famous personages. In the event of an appreciable number of his students not being able to follow his lectures or his experiments, he would readily repeat them for the benefit of the whole class.

I beg leave to place on record an interesting incident affecting me personally. While conducting experiments as a novice in the 3rd Year Honours practical chemistry laboratory, I happened to heat on the Bunsen burner flame a cold test-tube containing some liquid and continued



to hold it without shaking on the flame. Dr. Rây happened to notice the impropriety of my action and at once rushed to me from the other end of the room and helped me to rectify the mistake and taught me that holding the tube in the manner I did, might lead to a bursting of the tube, the glass being an imperfect conductor of heat. The proper way of conducting such experiments was to bring the tube over the flame gradually and intermittently—in Bengali "*Saiye saiye dhartae habe abong kâj kartae habe*". He also drew the moral for everyday use in life that not only in holding test-tubes over a flame but in all affairs of life, one must be careful to do the work by gradual stages and not to introduce too rapid changes. In this way he used to keep a careful and vigilant eye over the work of every student under his care and give all possible help, whenever necessary.

In the natural course of events and as a result of personal talk with each student coming to him for advice, he could make a fair estimate of the merit of the able students. In my case, he was aware that I was labouring under financial difficulties and scholarship was the chief means of my prosecuting higher studies—as the Gilchrist scholarship was in his own case. I secured the first place in mathematics in the Entrance (1898), F.A. (1900) and B.A. Hons. (1902) examinations and was Ishan Scholar elect in 1902. Although I also secured the first place in the University among the successful candidates with Honours in physics and chemistry (these were then regarded as one subject), I failed to secure a first class in that subject. Notwithstanding the fact that I was not so good in his own subject, chemistry, he recommended me very strongly for the grant of State Scholarship of £200/- per year, which fell due for award in 1903. I believe that this recommendation along with my proficiency in mathematics and general academic record weighed with the authorities and in September 1903 I was awarded the Government of India Scholarship of £200/- per year tenable for three years in order to enable me to prosecute higher studies in Europe. I joined St. John's College, Cambridge, in October 1903.

In 1904, even as a Provincial Service Officer who was not (at that time) ordinarily eligible for certain concessions admissible to European officers proceeding on study leave to Europe, Dr. Rây was granted, not without some difficulty, permission to visit European laboratories (p. 130). While on leave, he visited in his official capacity laboratories in London, Edinburgh, Leeds, Manchester, Birmingham, Sheffield, Paris, Berlin, Switzerland and other places (pp. 132-137). He did not visit Oxford and Cambridge in his official capacity, as Oxford was not famous for studies in scientific subjects and the epoch-making researches in physics on which Prof. (afterwards Lord) Rutherford and Prof. J. J. (afterwards Sir Joseph) Thomson were engaged had not till then achieved enough publicity. He, however, visited Cambridge in his private capacity in order to have a little rest and change from his strenuous activities. In January 1905, one

day, without any warning, I saw Dr. P. C. Rây walking into my room in St. John's College. I could hardly believe my eyes, but my delight knew no bounds and I considered myself singularly fortunate in welcoming my highly respected and beloved teacher who had always been a guide, philosopher and friend in my Presidency College days and who even now, when on leave, harboured a soft corner for me in his heart. Over a cup of tea we had a very delightful talk regarding old and happy days and also regarding my life at Cambridge. He was extremely delighted to hear that I was keeping up my studious habits and giving a good account of myself, having won a college scholarship after topping the list of scholars in my class in the first year's annual examination held in May 1904. As he had no time to spare and was to leave Cambridge the same day, he left after a short while giving me his blessings. It was deeply disappointing and distressing to me that for lack of previous intimation and owing to shortage of time, I failed miserably to accord a fitting welcome to such a distinguished person.

I cherished this distressed feeling for a long long time. Evidently, Providence in His infinite mercy took note of this frustration and a suitable opportunity presented itself when over 22 years later in 1926, Dr. Rây came to Nagpur for giving extension lectures in chemistry. He was the honoured guest of the Vice-Chancellor of the Nagpur University—the late Sir Bipin Krishna Bose of revered memory, who was one of the leading citizens of Nagpur, an erudite scholar and eminent lawyer, an open-handed philanthropist and a social worker. I was then posted at Nagpur as one of the Secretaries to the then Government of the Central Provinces. My wife (now deceased) and I decided to entertain Dr. Rây at a garden party given in his honour. When I went to Sir B. K. Bose's house to offer our invitation to him, I found him, curiously enough, in his bath-room washing his clothes in the same way as he was doing when I had visited him for the first time in Calcutta in 1898—nearly 28 years ago. Washing his own clothes and doing some manual work everyday were a life-long habit with him, and he persisted in it even at the risk of embarrassment to his hosts and friends. He was kind enough to accept with his usual smiling face and with utmost cordiality our invitation to the party which was attended by the *élite* and all leading ladies and gentlemen residing at Nagpur at that time. In those days, it was an unwritten custom for the Governor of a province not to attend private garden parties or dinners organized by the Secretaries to the Government, but his wife, Lady Butler, was good enough to grace the occasion; and Dr. Rây moved about with his accustomed joviality to the great delight of the assembled guests. On the conclusion of the function, he gave his heart-felt blessings to my wife who was a confirmed life-long invalid like himself for the restoration of her health and wished me a long and successful life.

I have confined myself to narrating some of the principal traits in the character of this great son of India. It would be a very pleasant task to portray several other traits of his, such as his selfless patriotism, love



and sacrifice for suffering humanity, and the stupendous energy and ability displayed by him in organizing relief operations during the North Bengal floods (1922) and Khulna famine in 1921, which won the admiration of experienced and retired European I. C. S. officers doing similar work on active service (pp. 234 to 256). I refrain from doing so from consideration of space. In short, Acharya Prafulla Chandra was an eminent scientist, an inspiring teacher, a selfless patriot and social worker and, above all, a great soul who has left his mark on the diverse phases in the activities of life. It is for the students and his countrymen to work up to the ideals set by him before the nation.

All the page numbers given in this article refer to Acharya Ray's autobiography, *Life and Experiences of a Bengali Chemist*.

REMINISCENCES

BY SATYA SUNDAR DEB

Even while I was a student in the City Collegiate School, Calcutta (1887-1897), I had heard of the name of Acharya Rây but do not remember of having seen him then.

It was during my student days in the City College (1898-1902) that I used to go to the Presidency College at times and see Acharya Rây working in his laboratory in the midst of a plethora of instruments and accessories, scattered all round him. Being a student of chemistry myself I was fascinated and the vision of Louis Pasteur often came to my mind. I instinctively realized of his future greatness as a teacher.

It was in the year 1903 that I had the good fortune to come in personal contact with him. I secured a scholarship that year from the Society of Theists—the prominent members of which were Jogendra Chandra Ghose, B. L. Chowdhury and S. C. Roy, eldest brother of Dr. B. C. Roy—which enabled me to go to Japan for the study of ceramic technology there. Owing to my pecuniary difficulties, I could not secure funds to purchase the outfit for the journey. So I was left with no other alternative than to collect this amount from persons of charitable dispositions like Kali Krishna Tagore, Justice Gurudas Banerji and others. In this connexion my father took me to Acharya Rây. His generosity was well-known at the time. He was then living in a house in Upper Circular Road adjacent to the present Science College. He received us very cordially and showed his interest in me and in my enterprise. The Bengal Chemical had already been started (1901) and he was full of vision about the future industrial development of the country. So my intention to visit Japan for learning the technique of a new industry pleased him immensely. On hearing about my pecuniary difficulties, he immediately contributed a sizeable amount. I went to Japan in May 1903. As the value of my scholarship was meagre, he used to send occasionally money to my father for the purchase of books, clothings, etc. and enquired of me quite often. His benevolent disposition and unbounded charity helped many students to prosecute their studies both here and abroad.

I returned from Japan in December 1905 and joined the then Calcutta Pottery Works (Maharaja Sir Manindra Chandra Nandy of Cossimbazar, Baikunta Nath Sen and Hemendra Nath Sen were the proprietors) in early 1906. A nucleus was already there making soft glazed pottery by hand



ACHARYA PRAFULLA CHANDRA RÂY

processes and I had to plan a new factory on Japanese lines to manufacture articles of porcelain using modern machines and processes.

The factory of Bengal Chemical was constructed at a site at the farther end of Manicktala Main Road adjoining the salt lakes, and my small factory (the initial capital raised by me was Rs. 2000/- only) was located on the grounds of the Wards Institution at the end of a short lane off Manicktala Main Road, between Upper Circular Road and the Circular Canal.

Acharya Rây's interest in me never waned and he used to visit me on his way to attend the Directors' meetings at the Bengal Chemical factory along with his colleagues, viz., Chandra Bhusan Bhaduri, Nanda Lal Banerjee and others. They used to travel in a third class hackney carriage. His unostentatious and simple mode of living and transport surprised me.

I used to visit Acharya Rây pretty often, and sometime in 1906 he introduced me to Rajsekhar Bose—the Works Manager of the Bengal Chemical (he joined in 1903). I knew Satis Chandra Das Gupta earlier, as we were college-mates in the City College in 1899. Rajsekhar Bose was an ideal friend to me and he helped me all along and gave me the best advice to tide over the difficulties associated with the development of a new industry in this country.

The Calcutta Pottery Works was shifted to 45, Tangra Road in 1906 in a spacious plot covering over three acres, and a new factory was constructed and machines from Germany were imported to carry on the manufacture of glazed pottery on modern lines. If I remember aright Acharya Rây and Rajsekhar Bose visited the factory on several occasions to look into the progress I was making. Requirements of glazed pottery and laboratory articles of the Bengal Chemical were supplied to order by my factory. From 1906 to 1919 I always kept myself in touch with Acharya Rây. During this period he regularly helped me to tide over many difficulties I had to face in running the factory and thus saved the infant concern from extinction. He was always against capitalistic outlook in an industry. He believed in socialism and equality of man. He loved the working people.

The Bengal Potteries Ltd. was floated as a public limited liability company in 1919, taking over the assets and liabilities of the Calcutta Pottery Works, and at my request Acharya Rây joined the Board as a Director. I left the Bengal Potteries as its Managing Director in 1926, but he continued his association with the company for some years thereafter. He attended the Board meetings regularly and went round the works after the meetings. He showed great pleasure in inspecting a big modern plant that grew up from



a small factory. The progress of the Bengal Chemical always served as an incentive to me, and I used to go to see the factory with Rajsekhar Bose with great delight.

Practically speaking, Acharya Rây was the central moving force and source of inspiration in both these national enterprises.

Acharya Rây used to take simple food and his childlike behaviour surprised people sometimes. When attending Directors' meetings he used to send messages to my wife to make for him *cheera*, fried in pure ghee. He relished it very much and I had to replenish his stock at his residence now and then. He used to talk of this delicious food to others. I remember a remarkable incident which happened one day when I was with him at the Science College. A big cover was brought to him. He opened it and read the letter. It contained a request from the Earl of Ronaldshay, the then Governor of Bengal, to go to the Government House at his convenience and to explain to him what 'Ghosh's Law' was. I was surprised. The British Governor was a highly intellectual person and yet he never hesitated to learn fundamentals of science from an Indian scientist. Acharya Rây was held very much in esteem by the British rulers at that time.

Another incident happened when he was a Director of the Bengal Potteries Ltd. That was a time (1922-23) when the financial condition of the company had become very precarious. The Managing Agents could not provide the necessary funds for the company. I was in great difficulties, and was told by a friend to approach the Imperial Bank of India for a cash credit arrangement. Raja Hrishikesh Law was a member of the Board of Governors. I approached Acharya Rây and apprised him of the position. He readily consented and took me to the Raja and requested him to support our application. Our application was granted—a no mean achievement in those days. The cash credit was for an amount of 2½ lakh of rupees. According to the rules, apart from the hypothecation of all assets of the company, two guarantors were necessary to safeguard the advance if sufficient money was not obtained by the disposal of the assets to cover the advance in case the company went into liquidation.

Maharaja Sir Manindra Chandra Nandy, when approached by me, agreed to be a guarantor. Another guarantor was required. There were two very active Directors in Calcutta who were well-placed, but when approached they flatly refused to stand security for reasons best known to them. I felt very sad and dejected. I had no other alternative left than to approach Acharya Rây personally and to explain to him the position. The bankers in the meantime were pressing me to complete the transaction as early as possible. On hearing everything he said that he was not a man of means but only a poor teacher, and that the bank would never accept him as a guarantor. I remember to have said that as he lived in a palatial



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mansion and had so many titles after his name, I could try, if he agreed. I also told him humorously that he should hide his charpoy on which he slept if any bank agent came to enquire about his status. He laughed and readily signed.

I went to the bank straight from there, not neglecting to write in a piece of paper Acharya Rây's full name and all his degrees including the Knighthood and other honours which he had received at the hands of the Government. The European gentleman in charge of the cash credit department was kind-hearted and sympathetic. I saw him armed with the paper signed by two guarantors. He read the name of the Maharaja and enquired who was the other gentleman—P. C. Rây. I handed him over the slip. He scrutinized it intensely for some time and hastened to see the Secretary asking me to wait till his return. Those few minutes I felt like an hour. He returned smiling and said that the guarantors were accepted.

I came straight from the bank to the Science College and saw Acharya Rây and exclaimed : who said that he was a poor teacher? He was now worth 2½ lakh of rupees and a man of means. He stood up, laughed and gave me a few of his affectionate slaps and blows. Later on he said to Rajsekhar Bose—"Look what Deb has done to me. I am now worth 2½ lakh of rupees." The Bengal Chemical also got a cash credit from the Imperial Bank later on.

I left the service of the Bengal Potteries Ltd. in 1926 and went outside Bengal to work elsewhere and naturally I got out of touch with his great personality.

Acharya Rây was a believer in pure theism as propounded in the Upanishads and which is the creed of the Brahmo Samaj. He was a member of the Sadharan Brahmo Samaj and I remember seeing and hearing him while speaking in the Prayer Hall. His remarkable address as President of the East Bengal Brahmo Sammilani delivered at Tangail in 1936 will bear testimony to his deeply religious mind and philosophy of life. The degrading condition of the society bereft of truth and character pained him. He was perhaps the last landmark of the elder generation of great men of Bengal since Raja Rammohun Roy.

On the birth-day centenary of this great son of Bengal I as a humble devotee offer my heartfelt homage to him.

REMINISCENCES

BY N. R. DHAR

I had the good fortune of meeting our *Guru*, Acharya Prafulla Chandra Rây, for the first time in 1907 in the Ripon College, now known as Surendra Nath College. Acharya Rây and Chandra Bhusan Bhaduri visited this college for equipping it for the newly started I.Sc. course, which I had joined. When I was admitted to the B.Sc. Honours course in chemistry in the Presidency College in 1909, I came in daily contact with this great man, an eminent teacher and scholar. In July 1912, he invited me to be his guest on the top floor of the office of the Bengal Chemical and Pharmaceutical Works at 91, Upper Circular Road, Calcutta and I stayed with him for three years before proceeding to Europe in 1915. Thus I came to know him intimately and entered into his thoughts and ideas and learnt to admire and respect the noble and sterling qualities of his head and heart. I was deeply impressed by his great patriotism, his interest for suffering humanity, his love for the student community, and by his great wisdom and erudition. He frequently used to say that it was of little good to dip one's electrodes in the conductivity cell when the country was in bondage and suffering from semi-starvation.

He was a great believer in the Indian tradition of plain living and high thinking and practised it to the fullest extent. During the period of his Government service in the Presidency College (1889-1915), first as a junior professor of chemistry and later on as the Professor and Head of the Department, he drew a salary ranging from Rs. 250/- up to 800/- per month; but his college dress consisted of cotton suits prepared from material worth annas four per yard. In the mornings and evenings, he used cheap cotton *dhooties*, often torn. Frequently in the Red Road Maidan Club of which he was a regular member along with Kaviraj Nagendra Nath Sen of "Kesharanjan" hair oil fame, Principal G. C. Bose of Bangabasi College, Satyananda Bose, a well-known follower of Surendra Nath Banerjea and a life-long friend of Acharya Rây, and his pupils, he took pleasure in showing the torn condition of his shirt and *dhooti*. While in service at the Presidency College, he used to go to the college in a hackney carriage and pay annas four per trip. He told me on many occasions that in his holiday trips to North India along with Sir Nilratan Sarkar (to whom Acharya Rây was greatly attached), Dr. P. K. Acharya, Krishna Kumar Mitra and others, the railway waiting-room bearers would not believe that he was a second-class passenger, because of his shabby dress. In the evenings before dinner



when we talked on different topics he frequently expressed a supreme contempt for the glamour and glory of the western civilization, although he admired its many good points, viz., honesty in daily life, equality of opportunity for the rich and the poor, civic sense, law-abiding ways, spirit of helpfulness, punctuality, pursuit of science, etc. He studied in the University of Edinburgh for over four years (1883-1887) and later on visited Europe four times for attending the Empire University Congress and picking up new trends in the progress of chemistry in 1901, 1912, 1919 and 1926 but he never put on the proper European costume. Other great Indians like Sir J. C. Bose and Gopal Krishna Gokhale, who were Acharya Rây's close friends, followed the doctrine 'whilst in Rome, be a Roman' and mostly used the European dress when in Europe. In 1912, Gokhale was in Calcutta as a member of the Islington Commission for Indian reforms and visited the chemistry laboratory of the Presidency College to have his urine tested for glucose by the pupils of Acharya Rây as Gokhale suffered from diabetes. Acharya Rây used to mention that Gokhale always acknowledged the debt of his "Servants of India society" to Bengal for financial help and stated that "what Bengal thinks today, India will think tomorrow."

For many years Acharya Rây contributed Rs. 400/- per month for helping the needy students of the Calcutta colleges and paid liberally to the Sadharan Brambo Samaj and to Bramo Girls' School which was under the supervision of his friend Lady Abala Bose. Whenever any good cause lacked money, people approached Lady Bose and she secured substantial help from Acharya Rây. Moreover, at his initiative and expense the Bengal Chemical and Pharmaceutical Works used to supply equipment and fittings to many of the colleges introducing science teaching. I gratefully acknowledge his help of £40/- (Rs. 500/-) when I proceeded to Europe for research work as a State Scholar in 1915. H. K. Sen, afterwards Professor of Applied Chemistry, Calcutta University, used to receive Rs. 40/- per month from the Acharya for a few years during his student days. Later on, as long as Acharya Rây was the Palit Professor of Chemistry in the University, he did not touch the emoluments of the Chair but lived on his pension of Rs. 400/- per month. He gave away a considerable portion of his professorial salary to the Indian Chemical Society and to the University of Calcutta for awarding the "Nāgārjuna Prize" for chemical research and for creating some research fellowships and prizes in science.

Although of charitable and philanthropic disposition of mind, he was however eminently practical and founded the well-known chemical concern, the Bengal Chemical and Pharmaceutical Works, with its branches all over the country. In 1912, on his return from the European tour after having obtained the Honorary D.Sc. degree from the University of Durham, the staff and students of the Presidency College gave him an ovation over which H. R. James, the then Principal, presided and spoke



with great fervour about Acharya Rây's qualities and ability to start a great industry where businessmen had failed. Mr. James, who had a great respect for Acharya Rây, made him the only professor-member of the Governing Body of the Presidency College.

He was extremely attached to his pupils and liked to be surrounded by them. Prof. P. Rây, Drs. H. K. Sen, B. B. Dey, R. C. Ray, M. N. Saha, J. C. Ghosh, J. N. Mukherji, P. B. Sarkar, S. S. Bhatnagar, P. C. Guha, B. C. Guha, J. N. Ray, P. K. Bose and many others like myself were inspired by him.

Acharya Rây had a great love for chemistry and possessed excellent skill in chemical experiments and manipulations; and his lectures with experimental demonstrations showed his grasp of principles and clearness of ideas. He took great pains and often corrected the lecture notes taken down by his pupils. I gratefully remember the long period he spent with me in the laboratory and discussed the results when I was making the experiments on conductivity measurements of simple and complex nitrite solutions utilizing the electric conductivity of water. Before he proceeded to Europe for the third time in 1912, we carried on experiments by the Hoffman method on the vapour density determination of the extremely unstable substance, ammonium nitrite, in vacuum. The material readily breaks up into nitrogen gas and water at the ordinary temperature with evolution of heat ($\text{NH}_4\text{NO}_2 = \text{N}_2 + 2\text{H}_2\text{O} + 718 \text{ KCal.}$). Acharya Rây read the communications embodying these investigations in a meeting of the Chemical Society, London and he was heartily congratulated by Sir William Ramsay, Sir Henry E. Roscoe and other eminent British chemists. In welcoming Dr. P. C. Rây, Dr. Veley remarked that Dr. Rây represented a nation which had attained a high degree of civilization and discovered many chemical processes when this country (England) was but a dismal swamp.

The Universities of Calcutta, Bombay and Madras celebrated their centenary in 1957, but in the early days of their existence there was hardly any original work carried out at these seats of learning. Only at the beginning of the present century, research work in Indian history, philosophy, Sanskrit, etc. started on an organized scale. Acharya Rây and Acharya J. C. Bose began experimental investigations in the Presidency College as early as 1888 and almost unaided they continued to work in the laboratory. From then onwards several brilliant young men were inspired and came under the influence of Acharya Rây and a vigorous school of chemical research started in Calcutta for the first time in the history of university education in India. Sir C. V. Raman, an accounts officer, commenced physical researches in Calcutta at 210, Bowbazar Street in the laboratories of the Indian Association for the Cultivation of Science in 1907. He also attracted research workers in physics from many parts of India.



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Within a short time, the pupils of Acharya Rây created powerful centres of studies and research in many universities of the country. Through the munificence of Sir T. N. Palit, Sir Rash Behari Ghosh, Raja of Khaira, the University College of Science came into existence in 1915 with Acharya Rây as the Palit Professor of Chemistry and Sir C. V. Raman as the Palit Professor of Physics. This event is a milestone in our national development and provided Acharya Rây the opportunity he hoped for,—to express in his own words—"the realization of the dream of my life."

Acharya Rây should certainly be recognized as a great teacher of chemistry and source of inspiration to young men and deserves to be placed in the same rank with Gay Lussac, Berzelius, Liebig, Wöhler, Ostwald, Ramsay, Urbain and Sylvain Levi of European fame. Acharya Rây was well-versed in history and English literature and could easily read books and journals in French and German. His great knowledge of chemistry and history of natural and physical sciences is embodied in his monumental work, *History of Hindu Chemistry*, which has been very ably revised and enlarged by his beloved pupil Prof. P. Rây.

Although he named his book as Hindu Chemistry he was a staunch Brahmo and enjoyed the great confidence of leaders of the Brahmo Samaj like Sivanath Shastri, Nilratan Sarkar, P. K. Acharya, Sitanath Tatwabhusan and contributed large sums for the welfare of the Samaj. I gratefully acknowledge his confidence and deep affection for me. He also visited us many times either at Jessore or at Allahabad. When I married Sheila Devi in 1938, our *Guru* was very happy as she was a Brahmo girl and a good chemist. About 10 years before his death in 1944, I visited him at Raruli-Katipara, Khulna, where he was spending the summer vacation, encouraging young men by his example to lead a rural life. After spending four happy days with him, when I was leaving for Allahabad, his eyes were full of tears, which moved me deeply. Such a *Guru*, a patriot, a humanist, a great scientist, a historian, a philanthropist and above all a man who lived entirely for others cannot but influence the youth for achieving a noble life in the service of the nation.

As a token of love and reverence to his memory, the Corporation of Calcutta has renamed a portion of the Upper Circular Road as Acharya Prafulla Chandra Road. But he will live for ever in the hearts of his grateful countrymen as an example of a simple and noble life consecrated to the service of humanity.

REMINISCENCES †

BY JYOTIRMOYEE GANGULI

I do not exactly remember the day I first saw Prafulla Chandra. It seems I had been seeing him from the very day of my birth. Who knows whether the tiny new-born baby lying on her father's arms had not blinked at the stern and yet kind, grave and yet humorous, sweet and yet strong face of that young friend of her father and uncles, and wondered at the pointed Edwardian beard of his! As a young girl I always thought what a contrast he was to the spick and span smartness of his friend Sir Jagadis Chandra Bose. Both of them were a source of pride to us. But my younger sister would not hear of any comparison between them, for to her Prafulla Chandra was the wonder of wonders—all because he wore a pair of tan boots! We were very fond of him and we met him almost daily along with others—of whom the father of the editor of this journal, the late Mr. Gagan Chandra Home, was one—usually at the house of the late Mr. Paresh Nath Sen, later my professor at the Bethune College. From there Prafulla Chandra used to go out for a drive in the maidan and the Strand in his phaeton. My uncle, the late Mr. Dwijendranath Bose, used often to accompany him, and I have heard him humorously telling him (he was a strikingly handsome person): "Dwijen, you look like Prince Charming and by your side I?—why, people would think you are the owner of this carriage and I but your—what?" And then came a good slap on the back of his young companion.

I did not know then that here was a chemist who was shaping India's destiny with his slim hands—I did not know that like the alchemist of yore he was turning dross into gold—I knew and cared for him only as a friend of our family and I loved him because somehow in my heart of hearts I knew he loved us all with a fatherly love.

I came under his notice again when Mahatma Gandhi and that great woman of India, the *petite* Mrs. Gandhi—our "Ba" of later years—returned to Calcutta from South Africa. My mother had been organizing a reception in their honour, and I acted as her secretary. This put me in the limelight with some of our parents' friends. And one day I found

† Reproduced from the *Calcutta Municipal Gazette*—Sir P. C. Rây Memorial Supplement, p. 27 (24th June, 1944).



myself suddenly called to the presence of Acharya Rāy who slapped and smacked my back in his peculiarly usual manner. This was how he expressed his love and affection for a person. And this exuberance of feeling could neither be misinterpreted nor misjudged.

Some years after, I received a small note written in pencil in which he called me his *MA-LAKSHMI* and requested me to take up the begging bowl, which, as a son, he was handing over to me as his greatest gift. I came over to see him and pleaded with him that I did not feel myself equal to the task : but I did so in vain. To all my importunities he replied by reciting Kamini Ray's poem :

*"karite pārinā kāj,
sadā bhaya sadā lāj;
samsaye samkalpa sadā tale,
pāchhe loke kichhu bale."*

"Always afraid, always shy of work, the resolution is always shaken by the misgiving about what people might say".

I still seem to hear his laugh across the valley of death,—“Lest people call you names?—are you not your father's daughter—have you not his fighting blood coursing through your veins?”

Later, while working with him in the Sankat-Tran Samity, I, one day, with tears in my eyes, refused to carry his begging bowl any more, because some people, I had approached for help, had slandered him—our most beloved leader. Who could bear nasty things being said about one who could have lived in luxury, rolled in wealth but who had always lived as a poor man so that others could be fed and clothed? Two of my friends, Misses Nihar Das and Sudha Gupta, who had worked their fingers into bones and palms into blisters by sewing sacks into vests and pullovers, were as indignant and as tearful. Acharyadev's only reply was a smiling question whether we had forgotten Rabindranath's : Let not calumny or insult rob you of your happiness,—find joy in forgiving all.

*"samkate sampade thāka kalyāne
thāka ānande sadā nindā apamāne
savare kariyā kshamā thāka ānande."*

Really this was the motto of his life. And for him to forgive and forget was easy.

And the next day he sent me a letter asking me to go back to my work. "It is not to a party in your father's house that I am inviting you to join—



so you cannot say, 'no'. In fact, you have no right to refuse. It is in the name of our Motherland, for the service to suffering humanity that my call is being sent to you. Come at once."

Childlike and simple in his behaviour, he never created any awe-inspiring distance between him and those who came to pay respects to him as a sage, savant and social worker. I introduced to him many school and college girls and boys who found in him a very near and dear person and not someone who had been put on a high pedestal by the votes of his countrymen. Whatever the height to which we raised him he always managed to climb down to be amongst us as one of us—our very own. I remember the day when we went to persuade him to join us in establishing a new insurance company. Rai Bahadur A. C. Banerjee, Mr. I. B. Sen, Suresh Roy and myself were there. It was his conviction that it would be both good as a business proposition as well as a kind of social service for our people that made him accept the first presidency of the new company. He had before this taken some interest—though not much—in the insurance business, writing occasionally articles for the *Insurance World*. I remember still the glow of interest in his eyes when he found that in other countries ravages of nature were also being covered by insurance.

Of late he lived with us in the apartments of Suresh Roy in the Aryasthan Buildings every now and then. It was our proud privilege to serve him then. I had very little to do, but I loved the hours I spent reading Shakespeare or criticisms on Shakespeare to him. It was a real joy to read out to him. He would go on listening quietly for long periods, when, suddenly, at some phrase or idea, he would stop me and cite some parallel lines and quote some passages from Shakespeare, or explain them in his own inimitable way. Mrs. Suresh Roy looked after the preparation of his food and other comforts. She would tend him as a mother would a delicate son, while her younger sister or myself would sit with him reading whenever the young reader appointed for that purpose could not come.

I have seen great sons of India and have come into contact with many of them. I have had the good fortune and proud privilege of working with some of them. But none I have felt to be so close to me—almost a member of my family—as I felt Acharyadev to be. His death is a personal loss to me as much as a national one.

Last year he heard about a mishap that had befallen a person known to us. People spoke about it in a hush-hush tone because it was known that the person had strayed from the path of convention. He called me to his bedside—he was too ill then to move about—and softly asked: "Do you know anything about this,—is the report true?" and then added: "Perhaps that is why he is feeling shy to come over to see me. Ring him up, child, and ask him to come over and see me." When I came back after



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phoning and reported that the person would come and see him the next day, he quoted :

"varttikā laiṃ hāte chalechhile ek sāthe."

"Went in company with torch in hand".

From his sick-bed he extended out his feeble hand to the fallen man who had lost the torch, to guide him on the way of life, and give him strength and new hope. Such was the man whom we mourn today.

Great sons of India have passed away before our eyes, whose loss the nation still mourns. They have shone like the sun in her sky, dispelling darkness, forming around them, from out of her warmth and strength, a solar world—composed of the satellites and planets of lesser talents. Acharyadev was to India a cosmic cloud of star-dust which, while whirling by, created other suns, not caring in the least whether they were bigger, more brilliant and stronger in their rays. His joy was only in creation.

ACHARYA PRAFULLA CHANDRA RAY

By JOGES CHANDRA GHOSE

The very caption of Acharyadev's autobiography made many people feel as to why he, the father of the modern Indian chemistry, preferred to introduce himself as a Bengali chemist instead of an Indian chemist. This did not certainly enhance his prestige. In outside world also people knew Bengal as a part of India only. Then why this choice?

I had a mind to ask the Acharyadev, from whom I got my lessons in chemistry and who initiated me to carry on research on Ayurveda, as to the reasons which prompted him to do so. But the chance came rather late when he visited our Sadhana Ausadhalaya at Dacca some time in the year 1930 along with the late Dr. J. C. Ghosh of the Dacca University.

According to Acharyadev, India could be made great only if her provinces were great. So the duty of all Indians was primarily to look after the well-being and improvement, both economical and otherwise, of their own provinces and thereby to raise the overall stature of India. Had Acharyadev been born in Maharashtra, Bihar or Tamilnad he might have written life and experiences of a Maharashtrian, a Bihari or a Tamil chemist. But thereby he would not have meant any disrespect, or ill will, or any aspersion to other provinces. When Acharyadev observed that the Bengalis were moving towards economic collapse he felt that it would ultimately bring down the whole Indian nation to the same level of degradation. So he felt for his country both as a Bengali and an Indian. The Bengalis, particularly of the new generation, must not lose heart and must have unflinching faith in the destiny or the future of Bengal and Bengalis. They must be made to believe, both in theory and practice, that Bengalis too can do big things and achieve distinction in different walks of life. That belief possibly forms the background for the captions, Bengali chemist, Bengal Chemical & Pharmaceutical Works and Bangiya Sankat-Tran Samity. Acharyadev used to say: "Let Bengal be revived, let Bengalis arise from their deep slumber, despair, and lethargy and let them be conscious about the dignity of manual labour and let them do something in trade, commerce and industry." In short, mother India would feel stronger so far as this particular limb of her was concerned, resulting in an overall improvement of the whole country.

There was a saying about Rabindranath that "Gurudeva was international because he was truly national". I think that similarly, Acharyadev also was non-provincial because he was truly provincial, and that was his way to become truly Indian and to serve mother India more effectively.

ACHARYA PRAFULLA CHANDRA

BY HEMENDRA PRASAD GHOSH

The independence movement in India—euphemistically called the Swadeshi movement—was the beginning of the movement which terminated in the transfer of power to Indians by Englishmen. The part played by Acharya Prafulla Chandra in the movement was of especial interest, but the history of his contribution to it will never be told as it cannot be told for want of evidence corroborating individual assertions. The history of a movement like the Swadeshi is in part the history of underground movements which must remain necessarily a mystery hidden and lost. The part he played in organizing industrial development in our country through the Bengal Chemical and Pharmaceutical Works Ltd. must be recognized as a pioneering effort in India. When the Swadeshi movement was strong and the alien rulers of India, behaving as 'the deaf adder that stoppeth her ear' hoped to crush it under the iron heels of coercion, i.e., oppression, and singled out for their operation Bengal which had been its birthplace, Gopal Krishna Gokhale, moderate in politics and a non-Bengali, counselled the Government to conciliate Bengal, otherwise, there would be no peace in India. As a member of the Legislative Council of the Governor-General he said—when the Seditious Meeting Bill was under consideration (November, 1909)—referring to the Bengalis:

"In almost all the walks of life open to the Indians the Bengalis are among the most distinguished. Some of the greatest social and religious reformers of recent times have come from their ranks. Of orators, journalists and politicians Bengal possessed some of the most brilliant. But I will not speak of them on this occasion because this class is more or less at discount in this place, but take science or law or literature. Where will you find another scientist in all India to place by the side of Dr. J. C. Bose or Dr. P. C. Rây...?"

The name of Acharya Prafulla Chandra, the scientist, whose researches had penetrated into the dim recesses of that distant past when Hindu chemistry had recorded wonderful achievements—was even then one to conjure with. But when Gokhale referred to his attainments as a scientist it was not the occasion to say that the Acharya was not an individual scientist in the department of chemistry but an institution—who created a school with his students. But what is more—the Acharya combined in his frail frame a



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philanthropist, a patriot, a *littérateur* and an industrialist. He was also a great organizer who attracted earnest workers in various undertakings and acted as the clamp that held together different groups of workers—as in the relief organizations during the North Bengal flood and the Bihar earthquake.

Born in an upper middle-class family in Bengal in comparatively affluent circumstances he had, even as a student, to feel the pinch of want if not of positive poverty. His father soon ran through his fortune by spending lavishly on education. He reprinted, for students, Wilson's *Dictionary in Sanskrit and English*, copies of which young Prafulla Chandra and his brother had to sell at times at a cheap price to defray their expenses as students in Calcutta. Had it not been for a scholarship which he obtained it would not have been possible for him to proceed to the U.K. to prosecute his higher studies there.

His health was never satisfactory and all through his life he had to fight against a weak constitution—overcoming with grim aggressiveness all obstacles and making his life crowned with events and achievements. A bachelor, he lived a life of privation and was looked after by his students whom he loved as his children and whose interest he considered to be the object of his first care.

Plain living and high thinking he practised all his life and by his own example made others do likewise. He would wash his own clothes, sweep his own room. *Nitor in adversum* was his motto.

He was in many ways a wonderful man who was obviously an exception to the general rule. Luxury could not allure him. His fountain of sympathy was ever-flowing. His doors were always open. His brain was ever-working. He loved to live with his students and help them in research work and for many years he lived in a room in the Science College of the Calcutta University where he died attended by his students. Though he spent most of his life in Calcutta he had a soft corner in his heart for his native village and the district in which it was located. Impecunious students never appealed to him in vain for he loved learning and wanted to see industrial India participate in the classic achievements of the lettered world—to fuse learning with the living forces of society.* He taught the students to be true students—making study itself their aim and study itself their reward—i.e., to be permanent students who cannot think of ever 'finishing', which is a life-long process.

POVERTY—INDUSTRIALIZATION—SCIENTIFIC EDUCATION

Early in his life Prafulla Chandra had observed the growing poverty of the people and the frequency with which famine came to claim its toll of human life in the country. It set him thinking furiously. He began



to study the conditions in the country and was convinced that prior to British rule, India had never been merely an agricultural country ; she had highly developed and opulent industries the products of which allured foreigners to launch a busy trade with the country by land and sea. But these industries had been throttled out of existence by the British till Indians became purely agricultural people and the country was transformed into a peasant empire. We do not know if he had studied the masterly exposition of Bhola Nath Chundra who was a popular writer when Prafulla Chandra was a young student. Bhola Nath had described the policy of the English in India thus :

"It may be summarized as a policy wholly and purely of interest, and not of duty. At first prohibitive, next aggressive, then suppressive, it has at last become repressive—setting bounds to Native ambition for anything approaching commercial rivalry".

That policy had converted Indians into a nation of hewers of wood and drawers of water. They were compelled to swallow the bitter pill and English administrators often considered it superfluous to make it sugar-coated. This will be apparent from the utterance of that prancing pro-consul Lord Curzon in India.

(1) At Cachar he said in 1901 that the identification of interests of all classes of Europeans in India had been his consistent endeavour. To the tea-planters he said : "I look upon all Englishmen in this country as engaged in different branches of the same great undertaking. Here we are all fellow-countrymen, comrades and friends. The fact that some of us earn our livelihood or discharge our duty by work of administration and others by cultivating the resources of the soil does not differentiate us one from the other. These are merely the sub-divisions of labour, they are not distinctions of objects or purpose or aim".

(2) Addressing the mine-owners in 1903 at Barakar he said : "My work lies in administration, yours in exploration, but both are aspects of the same question and of the same duty."

Considerations of space preclude the opportunity of my citing many cases of the destruction of Indian industries, and I must remain satisfied with citing the well-known case of the cotton industry.

When the East India Company began to import Indian silks with other Eastern stuffs into England, a great deal of exasperation was felt by the English manufacturers of cotton, woollen and silken goods ; and Parliament passed what Birdwood has called "the scandalous law of 1700" by which it was enacted—"that from and after the 29th day of September, 1701, all wrought silks, Bengals, and stuffs mixed with silk or herbs, of the



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manufacture of China, Persia, or the East Indies, and all calicoes, printed, dyed or stained there, which are or shall be imported into the Kingdom, shall not be worn or otherwise used in Great Britain, and all goods imported after that day, shall be warehoused or exported again."

This made H. H. Wilson observe : "Had not this been the case, had not prohibitory duties and decrees existed, the mills of Paisley and Manchester would have been stopped at their outset and could scarcely have been again in motion, even by the power of steam. They were created by the sacrifice of the Indian manufacture. Had India been independent, she would have retaliated, would have imposed prohibitive duties upon British goods, and would thus have preserved her own productive industries from annihilation. This act of self-defence was not permitted her; she was at the mercy of the stranger. British goods were forced upon her without paying any duty, and the foreign manufacturer employed the arm of political injustice to keep down and ultimately strangle a competitor with whom he could not have contended on equal terms."

But even prior to the law of 1700 we find another law enacted for the same purpose—one which could reach even the grave. When cotton goods did begin to come in, a fierce conflict ensued with wool, which was then styled "the flower and strength, the revenue and blood of England"—so important was it in the economic life of the people. Opposition to the new Indian "fripperies" became so pronounced that the woolweavers of Lancashire, already influential in politics, secured the passage of extreme excise laws one of which (in 1661) actually imposed fines on the survivors of any dead person not buried with woollen shroud.

In 1866 the India Office published *The Textile Manufacturers and the Costumes of the People of India*. The opening paragraphs of the sumptuous volume would go to explain the object England had in view :

"Specimens of allied important Textile Manufacturers of India existing in the stores of the India Museum have been collected in eighteen large volumes, of which twenty sets have been prepared each set being, as nearly as possible, an exact counter-part of all the others. The eighteen volumes, forming one set, contain 700 specimens, illustrating in a complete and convenient manner this branch of Indian manufacture. The twenty sets are to be distributed in Great Britain and India—thirteen in the former and seven in the latter—so that there will be twenty places, each provided with a collection exactly like all the others and so arranged as to admit of the interchange of references when required.

"Each sample has been prepared in such a way as to indicate the character of the whole piece from which it was cut, and thus enable the



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manufacturer to reproduce the article if he wishes to do so. In other words the eighteen volumes contain 700 *working samples or specimens*.

"The twenty sets of volumes may thus be regarded as *Twenty Industrial Museums*, illustrating the textile manufactures of India, and promoting trade operations between the East and the West, in so far as these are concerned."

The object was to increase the looms of Lancashire because "India buys but sparingly of our manufactures".

It shows how England was attempting to extinguish Indian textile manufacture for her own interest.

I remember, how, when securing a copy of the work I showed it to Acharya Rāy, he blessed me and got the introduction typed for his use. India, he told me, must industrialize or perish of poverty and to achieve that end science must be harnessed to the service of Indian manufacturers.

The idea of establishing a chemical and pharmaceutical works took hold of him. His old students who are still alive remember how after college hours Prafulla Chandra with his loyal assistant Chandrabhusan Bhaduri worked in the chemical laboratory of the Presidency College, then located in a separate shed attached to the ground floor of the main building which was of moderate proportions at that time. The only man who remained with them was Shibratan, the bearer. Experiments that were successful were applied to manufacture toilet and other goods in the Bengal Chemical to which Dr. Amulya Charan Bose and a few other young enthusiasts were attached—Rajshekhar Bose joining it later.

The first order the works secured was one for the supply of a few dozen bottles of syrups. Prafulla Chandra's brother who had come from his village home was entrusted with the work of purchasing a bag of sugar in the Chinapati of Burrabazar. He was asked to travel to the place in a tram car but come back on foot with the cooly who would carry the bag. The public and the medical practitioners were suspicious of the efficacy of the products and preferred foreign supplies while the young enthusiasts were too honest to ask even friends to risk their money as capital. It was a heroic fight with public suspicion and paucity of capital. It was at this time that Dr. Kartick Chandra Bose, a thorough businessman, joined the hopeful band. He was then a medical officer attached to the outdoor dispensary of the biggest Indian dealers—Butto Kristo Paul & Co., and he made it a point to use goods manufactured by the works—he was confident of their genuineness. Indian drugs were pressed into requisition and some popular medicines placed in the market. The demand for the products of the works went on increasing—quality combined with cheapness prevailed. But the paucity of capital remained. In the Bombay Presidency, Professor Gajjar



with the help of a batch of youngmen and advice of Justice Ranade started the Alembic Chemical Works. He knew that if and when necessary he would be helped with ample resource by H. H. the Gaekwar of Baroda who had taken a keen interest in the work of the professor. But it was not so in Bengal, especially because the money the Bengali was ready to invest in industries had gone from Calcutta to the *mofussil* with the introduction of the "Permanent Settlement" by Lord Cornwallis. The Acharya once recalled how on an occasion when a shareholder of the Company called for his dividend—(I think only ten annas) the coffers of the Company were so empty that the paltry sum had to be borrowed from the *durwan* (porter).

The fight of the Bengal Chemical was a heroic fight. It was instrumental in others coming forward and one of the concerns established was the Bengal Miscellany.

The ambition of the Acharya was to make India self-sufficient in her need for medicines and toilet requisites. I remember how one day on his way to the maidan he came to the *Basumati* office and placing two small containers on my table said—"This is the latest". It was Carbolic Tooth Powder prepared to replace Calvert's product which was then in extensive use among our young men. When on learning the price fixed, I said that it could be raised by two pice, he said—"No, the remotest chance of competition must be removed."

He was alarmed at the growing unemployment in Bengal among the educated and also among the uneducated, collected statistics of money that was sent out of Bengal by workers in the mills and factories every month through the post office, and impressed upon the people to take to industrial and manual labour—and understand the dignity of labour. He was the first man to write an elaborate book on it in Bengali—*The Bengali Brain and its Misuse*. He asked the young men to consider work as the only valid gospel of life and shake off lethargy and old world social ideas which made them hide-bound and retarded their activities.

POLITICIAN AND REFORMER

His concern for the economic uplift of the people made him a politician and a social and religious reformer. But he was for preserving the tree—not for cutting it down in his zeal for reform. It made him shun active and aggressive politics and aggressive social and religious reforms. The Indian National Congress being the one and only representative political organization of the people, he had sympathy for it. But he was fully aware of the fact that in India methods to attain independence had been as many as three—the constitutional agitation (with its protest, prayer and petition), the physical force movement (with its cult of the bomb and the revolver) and the non-violent non-cooperation movement originated in Bengal to

combat the oppression of the indigo planters and adopted by Mohandas Karamchand Gandhi for mass movement in politics (with *Satyagraha* as its weapon). Acharya Rāy lent his support to all these methods and those who had the good fortune to know him intimately cannot but admit that the great scientist had great and unstinted appreciation of the bravery, the determination and the sacrifice of those who adopted the second method to achieve the end. I can testify to his sorrow at the discovery by the police of the bomb factory at Muraripukur in the outskirts of Calcutta and the consequent arrest of the workers there. "Have the police been able to arrest all the members of the party?" was the question he asked me with deep concern when he learnt of the police search and subsequent arrests.

His national self-respect never lost an opportunity to express itself. I will give only two instances :

(1) He was the patron of a tiny steamer company which owned one passenger steamer that plied on the river Kapatakhsi from the railroad at Jhikargacha and served his native village.

An European concern rich in its resources and vessels competed with this tiny company and used various means to crush it. But the Acharya's resourcefulness overcame all difficulties. Finding it impossible to throttle the competitor the European concern proposed to buy the Indian company up. The proposal was made to Dr. P. Banerjee, the Secretary; he communicated it to the Acharya who asked him to arrange for an interview with a representative of the European company. A meeting was arranged. On the date fixed Dr. Banerjee called on the Acharya who was lying in bed on the charpoy and reading Macaulay's *History of England*. He reminded the Acharya of the engagement when the Acharya said that he was prepared for it. There were two chairs in the room. The European representative arrived at the appointed time and on entering the Acharya's room was asked to take his seat. He then broached his proposal to purchase the Indian company's assets, i.e. the vessel. "I have," said the Acharya, "a counter-proposal to make. You are a big concern with hundreds of steamers serving many lines. Ours is an insignificant concern with only one vessel and serving a short line. Why not let us alone by leaving the line to us? We shall be grateful to you for such action." The European was not prepared for such a proposal. After 'fencing' for some time he said that having fought for years with the Indian company it was not possible for them to abandon the line, as that would hurt their prestige. The Acharya said, "You talk of prestige! You have come here only for exploiting the resources of the country. And what of our prestige? We are sons of the soil, the steamer serves my own village and the neighbouring villages. If we sell our concern to you the loss to our prestige will be irreparable. Do you see that?"

The European went back crest-fallen, amazed at the sense of national pride shown by the Acharya.



(2) In 1941 the British Association for the Advancement of Science adopted a "Charter of Scientific Principles" in which fascism was condemned but not imperialism. This so provoked the old scientist that he wrote a letter to Sir Richard Gregory, President of the Association, from which we quote the following :

"Indian scientists would, however, take this opportunity to point out to the scientists of Britain and of other countries that the object of science for the promotion of human welfare is not only frustrated by Fascism but also by Imperialism as it operates, for instance, in India and other dependencies of Britain. Industrialization which is essential for the prosperity and strength of a nation in the modern age has been persistently opposed and even recently the Government of India has refused to support the growth of the automobile industry in India and the Secretary of State for India has spoken in Parliament against the manufacture of internal combustion engines in this country."

The letter shows that the fighter was still active in the aged Indian scientist and in spite of his retirement from public life (except when the insistent call of duty reached his sanctum and brought him out of his retirement) the same old and unquenchable fire of patriotism burnt in his heart.

LOVE ABOUNDING

His love for his friends and his students was abounding and extended to all. I have referred to his relief organizations for those who had suffered through the floods in North Bengal and for the victims of the Bihar earthquake. That even the unfortunate fallen sisters paraded the streets of the city to collect money and materials for relief work was proof positive of the reverence in which he, the Acharya, was held by all sections of the people. And his appeal was most effective with the down-trodden because they regarded him as a saintly person whose one ambition was to serve. His love attracted all.

It is no longer a secret that on an occasion when Acharya Jagadis Chandra Bose was taking round an eminent European scientist on a visit to the Presidency College laboratory which was his workshop, the then Principal of the College—who felt aggrieved at not being able to receive the foreign scientist himself—asked Acharya Bose to explain why he had taken a "stranger" to the College Laboratory without the permission of the head of the institution. Rabindranath Tagore and other friends of Acharya Bose took strong exception to the action of the Principal which, they said, constituted a positive discourtesy amounting to insult born of jealousy. A fitting reply was given to the effect that Dr. Bose had yet to know that a scientist of international fame like the gentleman who had been taken round the laboratory was a stranger in any part of the civilized world. But Rabindranath's poetic sensitiveness was so hurt that he



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suggested Dr. Bose to give up Government service and work in his own laboratory. He sought to raise money for the proposed laboratory and a generous sum was promised by H. H. the Maharaja of Tripura. Strange as it may appear Acharya Rây was not aware of this development. One morning when I went to him, I told him what I had heard of the incident. This so upset him that he at once went to his friend Bose to protest against the decision taken. I accompanied him. The Acharya bluntly told his friend that he should not think of giving up service because that would be like "taking one's meal on the bare floor because of dissatisfaction at the action of the thief." He said—(1) It would be a difficult task to equip a laboratory like the Presidency College laboratory because of the cost of doing so. (2) The Presidency College laboratory was our property as it had been equipped with the money extracted from India and not brought from England. At last he said that he would not leave Dr. Bose's house till he got the assurance that he (Dr. Bose) had abandoned the idea of resigning. The other Acharya was smiling all the time and Lady Bose sat silently watching the situation. I do not know if Acharya Prafulla Chandra's argument and insistence prevailed; but the idea of Dr. Bose resigning was given up. The Principal of the College—an Englishman—kept silence over the affair.

One day I got a long letter from a Parsee gentleman of Bombay enclosing a pamphlet, with quite a number of photographs and an account of ships built in a dock. These were India-built ships which had sailed to England. The dockyard had once been owned and run by the gentleman's forefathers. I was quite surprised to get the letter, etc. On enquiry I was informed that the gentleman had met Acharya Rây, and told him of the dockyard. Incidentally, I had written a short article on ship-building in India which had not escaped the Acharya's notice. Acharya Rây told the Parsee gentleman that one of his students had written an article on ship-building in India and would be interested in the history of the Bombay dockyard. He had also asked a friend to translate my article into English and send it to the Parsee gentleman. This was done. Such was the Acharya's love for his students.

There is a Sanskrit adage which says that a man always seeks victory over his rivals except in the case of his son or his disciple. It was thoroughly applicable to the Acharya.

THE MAN

Acharya Prafulla Chandra was a great scientist, an ardent patriot, a devoted educationist, and a well-known philanthropist. But above all he was great as a man.

What the *London Times* wrote of the late Dr. Harendracoomar Mookerjee is equally applicable to Acharya Prafulla Chandra :



"Class, creed and race meant little to him, for his mind and heart overrode them all."

Distress of the individual as much as of the people pained him. I have referred to his organized relief work in North Bengal and in Bihar. His appeal for the distressed in Midnapur in 1940 will bear repetition :

"Lakhs of people of Midnapur district have been rendered destitute by terribly devastating flood. We do not know if the cry of these destitute and distressed people has reached the ears of their countrymen. I am fully conversant with the situation which the river Keleghai in flood creates. During the last two occasions I had done my best to help the distressed people. But today, worn down by age, I am unable to render them any active service although my heart bleeds for them. I feel much relieved that the Midnapur Central Flood Relief Committee has fortunately taken up the task of organizing relief for the distressed area. Our popular leader Sj. Ramananda Chatterjee is the President of the Committee ; Dr. Sundari Mohan Das, Mr. Jatindra Nath Basu and Kumar Debendra Lal Khan and other veteran leading workers have formed this Committee for relief work. Two months have already elapsed but adequate measure for relief has not yet been adopted. The response has not been proportionate to the needs of the situation.

"I therefore appeal to my countrymen again and again, who had responded to my call on previous occasions, to similarly respond to the call without any further delay. I hope they will generously send their contribution either to Kumar Debendra Lal Khan, Treasurer, Gope, Midnapur, or to the Secretary, Midnapur Central Flood Relief Committee, E73, College Street Market, Calcutta."

He lived for others because he genuinely felt—

"The wretch concentrated all in self,
Living shall forfeit fair renown,
And doubly dying shall go down
To the vile dust, from whence he sprung,
Unwept, unhonoured and unsung".

Though dead he speaks to his countrymen trumpet-tongued, from the silence of the grave—Work for others so that the world may be happy.

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By SHANKHA CHOOR GHOSH

As his grand nephew I am proud to record that I had the opportunity of coming into contact with Acharya Prafulla Chandra Rây on several occasions. His younger sister, the late Sm. Indumati Ghosh, was married in the Ghosh family of Jorasanko, and was my grand aunt. Acharya Rây, during his lifetime, whenever he was in Calcutta, used to come to our house almost every week to see his sister. He was so fond of *gawja* (a variety of sweets) that I often heard him enquiring about it from his sister who used to prepare and send it to him regularly.

I have seen Acharya Rây engaged in family chats for hours together with his sister and with other members of our family, interspersed with discussions on problems of everyday life, on political activities, social welfare, and village development schemes.

Every word from his mouth had an educative value. During 1909 and 1910 he did our family valuable service as an arbitrator when two family properties were being partitioned. His legal conceptions, impressive arguments, fine judgement and above all his personality not only satisfied all the co-sharers of the Jorasanko Ghosh family but also charmed them. We found in him a friend and guide.

He was not a man to tolerate misuse or superfluous use of anything. I may recount an incident which, though apparently trifling, has some weight because it teaches us not to be extravagant. On a particular day when he was talking with his sister in our house I approached him as usual to have the opportunity of offering my respect to him. That day I had a flowing *pānjābi* on me. Acharya Rây took me to task. Why have you put on a chemise like a lady? When a shorter length serves the purpose, what is the good of spending extra cloth for the same object? He advised me not to waste cloth in that way. Such advice, although apparently trifling, teaches us to be thrifty if we go deep into it.

On another occasion, just on the eve of my admission into the college, I had been to him for advice and for a letter of recommendation for admission to the Presidency College. If my memory does not betray me, I remember that he told me to assimilate first what I had already taken before taking my second meal of the day. We had vast tracts of barren land at



Behala and many other places. I was asked to make best use of them and to be doubly benefitted by making arrangements for cultivation of those lands. This would not only fetch something for us but would also be of some benefit to our country. His strong desire for village reconstruction was expressed through this advice.

I cannot check the temptation of narrating another event which impressed me most in my business line. Before starting the business of manufacturing a few perfumery articles, I had been to Acharya Rây for advice when he told me not to be an 'ammeter' but to be a 'Ruhmkorff coil', or in other words he advised me not to simply imitate others but to produce something new. He also advised me to march forward at every stage without retreat, to try to improve the quality of the products and never to lower the standard for some extra profit. I had also some doubt about my efficiency as a business man though I was a graduate in science, but I was told that efficiency was the offspring of honesty and earnest labour. I ever remember this advice of Acharya Rây.

In our everyday life almost all the members of our family had the opportunity of getting many other valuable words of advice from Acharya Rây. He was not only our well-wisher but was also a good friend, a reliable adviser and a preceptor. Let us offer our heartiest love and gratitude from the core of our heart with our profound homage to Acharya Prafulla Chandra's memory.

ACHARYA RÂY AS I KNEW HIM

By B. C. GUHA

I had the unique good fortune of coming into fairly close contact with a few men, but just a few, who can be called truly great. Greatness, of course, can be measured by different kinds of measuring standards. There are 'great' men who have been immortalized in the pages of history for having vanquished nations and laid waste large tracts of our beautiful earth. There have been others who have risen to power by various tortuous methods and used that power sometimes for good and sometimes for evil. Yet others have achieved greatness in letters and in science and have deservedly received the tribute of mankind. Acharya Prafulla Chandra Rây belonged to the last category, but he combined scientific leadership with a personal greatness which has deeply influenced the growth of modern India.

Acharya Rây spent his boyhood and youth during a period of Indian history when, under the impact of western ideas, western institutions and western science and technology, many stagnating ancient traditions of India were giving way. A galaxy of great men appeared in the Indian horizon at this time and Dr. Rây was one of them. He fully endorsed the views of Raja Rammohun Roy that India must take to science if she was to progress. Though greatly attracted to literature, he elected to be a chemist. But he chose to cultivate chemistry not for his own satisfaction or glory only; he spent a lifetime in strenuous work to build a highway of chemistry in India on which succeeding generations may march. According to Dr. Rây, chemistry was a means for promoting the progress and industrialization of India, for building a modern Indian nation so that it might hold its own in the comity of nations.

It is well-known that, besides being the founder of the school of chemistry in India and of the Indian Chemical Society, Acharya Rây had great sympathy for all the movements—national and social—in the country. In times of flood and distress, his call for relief was listened to by millions because of his life of dedication to the country which inspired universal love and confidence. In all his work, Acharya Rây was quickened by an intense feeling of patriotism, his inextinguishable love for his long suffering motherland. He lived simply and dressed simply because he felt

himself identified with the poor people of India. He lived a Spartan life on Rs. 30/- a month, washed his own clothes and refused even to have an electric fan in his room. He gave away all his earnings to different institutions and to the needy students. This indeed is the type of personal greatness which impressed me most deeply during the years 1923 to 1926, which I greatly cherish for having lived in close association with him.

When I joined his laboratory as an M.Sc. student, he asked me to stay with him in the University College of Science. He pointed out to me that living as I did in our house about seven miles away I spent about two hours a day in coming and going. This, he calculated, meant a loss of a large number of days in a year spent in the tram-car only. He said such a loss of time could not be tolerated when we all had to work hard and work fast. He himself came to the laboratory at about 9 a.m. every day, went upstairs to his room for a midday meal at about 1 p.m., came down to the laboratory at 2.30 p.m. again and went back to his room at about 4 p.m. He would then read for nearly two hours with the door shut and go for his daily visit to the maidan at about 6 p.m. He hardly ever wasted time save when he relaxed in what has been called his Maidan Club. He never liked that two or three people should talk with each other in the laboratory except on scientific problems. He disliked lackadaisical work and was extremely serious about all the work of all the research scholars in his laboratory. Once a research scholar dropped a few drops of mercury when filling a tube and received a very severe rebuke from Dr. Rây. No Bunsen burner could be kept burning with a long flame when it was not in use. No printed letter-head could be used for scribbling. No distilled water could be wasted.

During the period of my stay with Acharya Rây, a torn page from a well-thumbed popular book, I had borrowed from a local library, had without my knowledge fluttered down to the staircase. Dr. Rây found this page, located the culprit (myself) and rebuked me in a manner that made an indelible impression on my mind. When I ventured to say that the book was already tattered, he grew furious and said that I could have had it bound at a small personal expense for the good of the library and of others. When nearly 35 years later, I find students cutting away whole pages from standard books of our college library, I wonder how far we have progressed on the way that Dr. Rây with his most lovable and yet vigorous personality had pointed to us so many years ago.

Acharya Rây loved his students as if they were his own sons. No father loved his son more, chastised him more, showed the right way farther. He frequently uttered the Sanskrit slogan which meant: "Wish for victory everywhere except from your son and from your disciple." He really meant it. As Rabindranath Tagore said, Dr. Rây exemplified in himself the Vedic dictum "One shall be many." Many writers, philosophers and



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scientists have been great in their own right, but few have spiritually reproduced themselves in their disciples, as Dr. Rây has done. His students also reciprocated his love.

Acharya Rây led a crusade against all forms of superstition and obscurantism. He was intolerant of the caste system and those traditions which had brought India to a pitiable state of stagnation and slavery. He thought that the emancipation of the Indian mind could alone produce the atmosphere for the successful scientific advance of this country. He literally spent himself in all these ceaseless many-sided activities which had patriotism as their central pivot.

Acharya Rây was a complete and versatile man. While engaged feverishly in his scientific studies and social and philanthropic work, he still had time to read history and literature. He had a particular love for English, Bengali and Sanskrit literature and knew many verses by heart. He knew French and German as well and it was a pleasure to hear his discourses full of anecdotes and of quotations from world's literature. Even when he was very old and his eyesight failed, he still would have Shakespeare read out to him and even at that time he dictated essays on Shakespeare which appeared serially in the *Calcutta Review*.

"A new generation came up which knew not Joseph," says the Bible. New generations have likewise come up in India which have not known Acharya Prafulla Chandra Rây. But we have to remember him and his legacy not for his sake but for our own. Not even a fraction of his exhortations which he constantly made to his people out of the anguish of his heart has yet been implemented in the lives of our people. Still the star of his life continues to send its beneficent light on the path of our nation. Let us be guided by it in our onward march to build the India of his dreams, India—which he loved so truly and so well.

ACHARYA PRAFULLA CHANDRA :

DER BAHNBRECHER

By JAGANNATH GUPTA

The author's personal contact with Acharya Rây was occasional, and for relatively short periods at a time. Impressions recorded here are thus largely subjective. He has compressed his two successive days in memorable company with the Acharya into one, for convenience of portrayal of the Acharya as a man who lived, and taught others to live, with a purpose.

An hour after dusk, as the Company's grey limousine came to a graceful halt in front of the Sodepur Khadi Pratisthan Rest House, and as the distinguished visitor was being received by Satis Babu at the doorstep, the host noticed that the Acharya's latest attendant was a shy youth, childish of face, and obviously new to the place. For that was the somewhat unflattering description of myself in the middle thirties.

The visit had been previously arranged, so everything was in order, including a modest supper. The host was aware of the Acharya's brief routine after sundown, and that the visitors from Calcutta would be tired anyway ; so conversation was cut short to courteous enquiries about health, the journey and the like. The inmates of the Ashram then withdrew to leave the guests alone ; and, before long, the Rest House was quiet, vanishing in the overall darkness that reigned over the many other cottages of the campus.

It was very early the next morning. The twilight of dawn was lingering around till the rising sun would dispel it away. But the 'Old Man' had finished his breakfast. He meant to do some reading before the busy day would start, as usual, with the stream of visitors. Furthermore, there would be no reading possible in the afternoon, for he was to visit the Company's factory at Panihati. He was evidently pleased when he entered the living room and found me sitting on a stool opposite his chair and turning the pages of a book he had brought for the trip. "Very good" he said, while sitting in the chair, "good habit getting up early. It is a *must* if you are to be with me. Now, shall we begin, and where did we leave it yesterday? Oh, please take that note-book, will you, enter today's date, twenty-two, six, ah ! the month is indeed gone '.....' " I was slightly amused to hear the same instructions I had from him yesterday.



and the day before. So I merely dragged the note-book a little closer to me.

My smile was not lost on him, for forthwith came out his rebuff. "What makes you smile when I say time is running out? It is running out for me, and for you as well. That smile will not last long. Will you start your reading?" he ordered.

So I read :

'I proceed to another proof that the soul was created to look beyond and above all material interests. What is the great motive that prompts man to the study of nature? We know what intense labour has been given to this pursuit. Has the great aim of these natural philosophers been to multiply the means of outward good? No! The unconquerable thirst for knowledge, for wide views, for comprehension of the order and beauty of creation as a whole'

He was listening attentively. Then he interrupted, "Stop. Underline the words 'unconquerable thirst'; note that down, page number—what is the page number? 158*? Have you noted it? Good. Carry on".

I fumbled a bit in carrying out the instructions all at once, but managed somehow; then went on :

' This is that has driven them into solitudes and deserts, and compelled them to bend every energy, at cost of utmost sacrifice, to the work of interpreting the secrets of the nature. Truth! Truth has been the divinity they have worshipped. The great men of science, so far from caring for the body, have cheerfully worn it out in daily and nightly study, have condemned it to exposure, fatigue, suffering, coarse raiment and scanty fare, and have died in poverty, that the soul might live in the light of truth. How many such glorious martyrs have left their record'

"Ah, wait a minute. Mark that entire sentence 'the great men' to was it 'the light of truth'? Yes, up to that; and note down the page number only. Make notes when you read, always, that is, if you want your reading to be useful. Do you know what *der Bahnbrecher* means in German?"

Of course I did not know, and shook my head. Obviously the Acharya did not think much of me, and added casually, "Never mind, you go on reading." I hung my head and began again :

'Who does not behold a glorious signature of the end of human soul in this hunger and thirst for truth'

**The Perfect Life* : by W. E. Channing, British and Foreign Unitarian Association, London, 1907.



"Note these words 'glorious signature' and write down also a good Bengali equivalent, if you can." And I did.

' And the zeal with which our lecture-rooms through cities, towns and villages are weekly thronged by multitudes, not a few of whom have spent the day in manual toil, but who forget fatigue in the reception of new light and in the joy of mental refreshment, is a testimony to the spiritual end for which the whole race was formed, as well as a cheering omen of the brighter social state which must surely come'.

By now, the 'Old Man' had relaxed himself in his chair. But no sooner had I come to this stop than he sat up, erect, and demanded, "Have you followed what you read? Or just a donkey with a back-load of sugar? I say, when you go to teach, will you ever think of these things? Why else, I wonder, do I get you fellows read these out to me?" And, all of a sudden, in a moment of absent-mindedness, I got a sharp slap on my face. The pencil went off my grip, but God saved it, for the lead was intact.

My reading lessons went on, with occasional comments and conversations for just over an hour. Once in a while, he put on his thick pair of glasses and checked the book, the note-book and the notings. I was new to the job, and perhaps could not be wholly trusted.

It all came to an end when the bearer came in to report that the directors of some textile mills were waiting in the adjoining room for the meeting. I was rearranging the books and papers on the table when he remarked mercifully: "You seem to read well, your articulation is good. You are off this afternoon, as you know, but we shall sit down together tomorrow morning as usual. Rest a while after lunch, if that is your habit, or repair my *charkha* to give it a correct tension. Remember we go to visit the chemical factory this afternoon."

He rose, deep in thought. Suddenly, as I was watching, he stood erect, gripped the leather case housing his spectacles and strode straight towards the door to the next room.

We had a simple and quiet lunch together. I knew he would now rest for an hour, so I attended to his *charkha* (in fact there was little to repair in that wonderfully simple machine) and then loitered outside for the greater part of time. When I slipped back into his room, he was already awake but lying still. Having seen me apparently taking life easy, he asked mischievously, "Will you please massage my aching legs? Oh, I am not sure if this will not hurt your prestige, your caste prestige I mean" It might have continued to more unexpected assaults, so I dropped at his bedside and started the job, and attempted a conversation on more conventional line.



"There are no visitors so far. Why not sleep a little longer today?"

The pampering suggestion had an immediate but opposite effect, and he was off his bed. "Remember we have to see the factory and come back. It is some distance from here, and we must be ready. How is the *charkha*, did you repair it? Good." He walked away and within ten minutes, was spinning hard and contentedly.

I went out to the terrace, which provided a wide, commanding view of the place around. You could see Satis Babu struggling behind piles of papers in front of his desk, squatted on the floor; the busy bee-master Khitis Babu in shorts and his apiary; the neat huts and the cheering life around; and no work for me.

I was conscious of the presence of a visitor—the first one for the afternoon—when I heard his deep, soft voice. "Babuji, I have come from a village four miles away, hearing that P. C. Rāy has come. I will not ask for anything. Can you help me meet him for a little while?", the tall old Muslim entreated.

The Acharya was devotedly spinning the yarn when I went in and conveyed the request. "Help him to wash and offer some food, then bring him here", he advised without looking at me.

I showed the visitor in after a while. He squatted on the floor near the Acharya, opened a longish little bundle, and handed over a rolled sheet of paper. "Do you remember the year you had come to our village when the crop had failed? I drew a pencil sketch of your face then, and was waiting since to give it to you in person," he submitted with folded hands, looking very satisfied.

The Acharya had to admit that his memory was betraying him that moment, and the fact that he had been wandering about like this to many places made precise recollection difficult. He, however, accepted the sketch, which was somewhat dulled with time, and passed it to me. I was to keep it carefully and take it back with us to Calcutta. The visitor did not stay long. "I must reach home before dusk", he said, as he raised his hands to me in wishing me good-bye.

The next visitor I showed in was a smart, middle-aged, rotund gentleman in European costume, speaking English in a characteristic accent. He came all the way from Calcutta to Dr. Rāy, he said, for the sake of his son. His request to the Acharya was to lend four scientific books for his son's education for a temporary period of two years from the Acharya's College of Science, for which act of kindness etc. . . . The Acharya was all smiles and, with admirable patience, explained that it was impossible, for he could not claim anything in that college as belonging to him. The gentleman left disappointed.



Acharya Rây looked at his watch and grew restless, though there was apparently enough time for the Company's car to come and take us to the factory. He pushed away the spinning-wheel, urged me to get ready without delay, and hurriedly went in to prepare himself for the journey. For aught I knew the two main items of his preparation were to pick up his stick and collect the pair of glasses safely tucked in its case ; so I just strolled outside to the terrace, waiting for him.

Just then—was it anticipated (?) —a very distinguished-looking visitor tripped up the steps. He was in great hurry, for as he enquired of me, with an unintentional flourish of his sleek walking stick, 'Is Sir P. C. in?', he made straight for the living room, myself following him stupidly where the 'Old Man' was engaged in his inevitable search for the leather-cased spectacles. He was in a relaxed mood and was heard to remark, with his eyes still on the table, "From the Bengal Chemical, I suppose", but on lifting his face and looking at us, his face hardened quickly as he blurted out "But I am going out now". A swift exchange of words followed.

"Why? Isn't there one already, which is as good as yours, if you know how to work together? But you must part. Why?"

"You know, there are difficulties; but I want to be advised about this."

"Not today; tomorrow; may be some other day."

In an extreme impatience he was already out of the bungalow and was walking along the approach road; and I followed, not knowing what else to do in that piquant situation. Fortunately, the grey car was presently within sight, and as we stepped into the back seats, the driver turned it round without a fuss and whisked us off, to my immense relief.

Under instructions from the Master, the chauffeur slowed down as we were nearing the factory at Panihati. Pointing his lifted fingers to the smoking chimneys against a bright blue sky, he said to me: "Look, that is my experiment. Sodepur, from where you have just come, is yet another. I started this experiment in two rooms, now we find eighty acres insufficient. After the day's chore of duty in the Presidency College, I used to carry the blowpipe and bellows to the Manicktala plant site to do autogenous soldering myself of the lead chambers. Nobody knew the job, nobody dared. Slowly they grew, bit by bit, and took their shape. Not the way of your student federation movement. I can still see how the first droplets of sulphuric acid moistened the floor of those chambers...."

A most pleasant and instructive couple-of-hour's visit to the different sections of the factory followed, each section's officer accompanying us and explaining things with clarity and charming courtesy. There were discussions, too, with the pioneer. Sometimes, he would push me forward to some Section-in-charge with a comment. "Show it to him. Make the chap realize the difference between knowledge from text-book and knowledge from actual practice."

The staff car ferried us back comfortably to the Rest House the same evening.

Evening darkness was enveloping distant objects from the view, and the trembling waters of the pool looked dusky and sombre. The old Acharya was chatting with Satis Babu, his close and affectionate colleague. Sitting at some distance, I could hear only fragments of their conversation. I heard Satis Babu speaking with emotion. "No, how could they come? With big buildings and fat salaries you are buying off the best brains of the land. When I tell them, here is our real motherland, where the *per capita* income is three rupees a month, where I cannot attract you for the sake of money, they look frightened. They all run away," he concluded in a voice of despair.

I saw the 'Old Man' smile and turn to me. "Do you know who he is? A child-lifter," he explained naughtily, and introduced me to him. "Please do not try your trick on this child of mine", he remarked to Satis Babu in a jovial mood. Satis Babu bowed low and briefly replied "Bless that I may learn the art as well as you have done it."

In the sprawling darkness, faces were no more clearly visible. All were silent for some time. The ripples in the pool had vanished from sight, and the water looked black and deep and still. "Let us go back", he said.

Satis Babu took leave of us there, as we set forth westward for the Rest House. The 'Old Man' leant on my shoulder, following me and feeling the way with his stick. The first part of the way back was difficult. Near the end, with a slight pressure of his left hand on my shoulder, he broke silence and muttered. "You know what is *der Bahnbrecher*? The path-finder. The pioneer."

ACHARYA RĀY'S INCOME AND EXPENDITURE

By MONORANJAN GUPTA

Would you believe that a man might be more completely known by studying how he earned his income and how he disposed of the same? Facts on this aspect of the life of Acharya Prafulla Chandra Rāy, when arrayed properly, contribute to a better understanding of the man.

The Acharya, as thus depicted, provides us with a glimpse of his mind in its attitude towards money—a mind steadfast in such matters even from before he started earning. It was a mind which constantly and steadily gave away whatever he could save from his income. He could save much : for, his personal expenses were meagre. He did not marry, had no family to support, spent only the irreducible minimum on his dress and food.

He went to England for higher studies in 1882 with a Gilchrist Scholarship. Before sailing he went home to bid his mother farewell. The Acharya writes on this occasion, "I was deeply attached to her and the parting scene was exceedingly painful and it was with a heavy heart that I took leave of her. I consoled her by assuring her that if I were successful in life (I am speaking of success here in ordinary accepted sense) my first duty should be to restore the family estates and to repair the ancestral residence, portions of which were fast falling into dilapidated condition. I confess my outlook of life (*he was only 21 then*) in those days was circumscribed by the mental horizon of my blurred vision. Providence had, however, ordained otherwise and by and by I learned that there are other and better ways of spending or utilizing one's earnings than by investing them in landed properties."

Prafulla Chandra returned to Calcutta in 1888 with a D.Sc. degree, but having spent to the last farthing the small balance of his scholarship for sight-seeing in a part of Europe, he had to borrow Rs. 8/- from the head purser of his ship in order to cover his landing expenses, etc. In subsequent life, however, he earned several lakhs and gave away everything he could save.

His life as a teacher of chemistry in the Presidency College, Calcutta, began in July 1889 on a salary of Rs. 250/- per month. This emolument increased from year to year. His mother died 15 years later in 1904 when



ACHARYA PRAFULLA CHANDRA RÂY

Rây was in England on a study tour. About her he wrote in a note-book (it is now kept in the Acharya Prafulla Chandra collection in the museum of the Bangiya Sahitya Parishad) on 6th December, 1904 : "Early this morning I received a letter from my eldest brother, announcing my mother's death—the shock the most severe I have felt in my life. She was the one centre towards which affections were directed—the void never to be filled up."

The nature of his affection for his mother is brought to the fore in the above lines. Even such deep devotion did not divert his mode of giving away his earnings, though he knew that any attempt at restoration of worldly possessions would have brought solace to his aged mother who had been always feeling very unhappy at the gradual deterioration of family circumstances.

In 1916 Acharya Rây retired from the Government service. He was then drawing an emolument of nearly one thousand rupees per month. Immediately after, he joined the University College of Science as Palit Professor of Chemistry on a monthly salary of Rs. 1,000/-. He continued there up to 1936.

He had drawn a pension of Rs. 430/- per month from 1916 to June 16, 1944 (date of his death) for his service in the Presidency College. The honorarium for his lectures sponsored by the universities of India and his fees as examiner for the higher science examinations of different institutions of the country also added to his income from time to time. The sale of his books likewise brought him some money, though not much. His father died in 1894, but his property had dwindled away. This, therefore, might not have brought him any income. As the founder of many manufacturing joint-stock companies he owned some shares. Thus he came to hold shares in the Bengal Chemical and other companies of the total face value of about Rs. 56,000/-. It is difficult to ascertain definitely the income he derived from these shares during his lifetime.

The following survey, however, gives an idea of his income :

Presidency College	..	Rs. 500 x 12 x 27 yrs. = Rs. 1,62,000/-
Pension	..	Rs. 430 x 12 x 28 yrs. = Rs. 1,44,480/-
College of Science	..	Rs. 1000 x 12 x 20 yrs. = Rs. 2,40,000/-
		Rs. 5,46,480/-

In this estimate other heads are not included, because the honorarium paid by the universities were returned by the Acharya to them for some work beneficial to these institutions, and after he had joined the College of Science the cheques for examiner's fees were entrusted to the care of his



colleague, Dr. Prafulla Chandra Mitter, to be credited to funds already created by him.

In 1920 he had created a trust fund consisting of his shares in the joint-stock companies. The income from the fund was to be used for popularizing khadi and helping the orphans and helpless widows. The present trustees of the fund are : Bhupati Mazumdar, Prafulla Kumar Bose, Satyaprasanna Sen and Nadiabehari Adhikari.

He did not draw any director's fee from the Bengal Chemical or any other company and advised them to invest the amount in a fund for the benefit of their workers.

The expenses of his daily life were very small indeed. His dress was of ordinary mill-made cloth, which in later life was replaced by khadi. He was so very frugal that from the same specimen of cloth he often got two pieces of coat tailored at a time, one for himself and the other for his bearer. He discarded worn out clothing only when they were found to be absolutely useless. The Acharya used to wash his own clothing with soap and polish his own shoes.

Being a dyspeptic and an occasional sufferer from insomnia, Prafulla Chandra used to take a very simple and sparing diet. Two or three of his meritorious students (none were his relations) generally stayed with him in his Science College residence. He took the same food with them. The students had to manage the household affairs amongst themselves and conduct the mess management economically.

Of the students who once lived with him, mention may be made of Gopal Chandra Chakravorty, Prafulla Kumar Bose, Bires Chandra Guha, Nadiabehari Adhikari, Susilkumar Mitra, Dinesh Chandra Sen, Sanat Kumar Bandopadhyaya and Nripendra Nath Ghose. The Acharya never allowed them to render him any personal service but directed them to be busy with their studies.

Every evening the Acharya used to go to the maidan for fresh air. He maintained a horse-driven carriage for the purpose till 1938 when the B.C.P.W. arranged to send him a car every evening.

Nadiabehari Adhikari (now the Manager of the Bengal Chemical) joined his household as a student in 1926 and was with him for 9 years. He used to keep the account of the Acharya for a period and according to the information supplied by him the total expenditure for the household management, including the expenses for the maintenance of the horse-drawn carriage and short railway journeys, seldom exceeded Rs. 200/- per month. This was met from his pension of Rs. 430/- per month, and the balance was credited to his account in the bank.



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The amount thus accumulated was given away in charity by the Acharya from time to time.

Not an inconsiderable portion of Prafulla Chandra's charity was private and hence unrecorded, so it is not possible to give a complete account of it. Only an account of those in record is given below :

1. The Indian Chemical Society was established in 1924. Since then the Society received large amounts from him.
2. The Acharya gave away considerable amounts to the City College and the Bagerhat College.
3. He founded an Educational Society in his village and handed over Rs. 10,000/- for its work.
4. In 1922 he paid Rs. 10,000/- to the University of Calcutta for founding an annual prize for research work in chemistry under the name of "Nāgārjuna Prize".
5. His salary as Palit Professor in the College of Science for 15 years from 1921 to 1936, i.e., from the date of his attainment of sixtieth year to the time of his retirement, amounting to Rs. 1,80,000/- (interest not included) was donated to the University.

Barring a paltry sum of Rs. 200/- per month for his household expenses he thus gave away all his life's earnings for the service of his country. As enjoined in our ancient scriptures he tried to realize his self through service and sacrifice.

भोगे वज्रकठिनो यस्त्यागे कुसुमकोमलः ।
यस्य प्रफुल्लं हृदयं तमाचार्यं नमाम्यहम् ॥

Whose heart was strongly resistant as a *vajra* to physical comforts and tender as a flower in service and sacrifice, to that Acharya I offer my salutations.

ACHARYA PRAFULLA CHANDRA

BY KALIDAS NAG

In paying my homage to Dr. P. C. Rây in the year of Tagore centenary, I remember simultaneously Acharya Jagadis Chandra (1858-1938), Acharya Prafulla Chandra (1861-1944) and Dr. Nilratan Sircar (1861-1943), all close friends of Kaviguru Rabindranath.

Prafulla Chandra's ancestral house, like Tagore's Shelaiddaha, is now in East Pakistan; and we hope efforts would be made to preserve them like valuable relics.

In 1870 Prafulla Chandra began his studies in the Hare School of Calcutta, later joining the Metropolitan Institution (now Vidyasagar College). Like his predecessors P. N. Bose (geologist), and G. C. Bose (botanist) Prafulla Chandra secured the Gilchrist Scholarship (£200 a year) and joined the Edinburgh University, famous equally for chemistry and medicine. There went also Aghorenath Chattopadhyaya whom I met in Calcutta long after. He had his doctorate in chemistry from Edinburgh in 1875. A decade after, Prafulla Chandra took his doctorate in chemistry from the same university. Prof. A. Crum Brown was the President of the Edinburgh Chemical Society with his pupil Dr. P. C. Rây as the Vice-President and Dr. Ralph Stockman, M.D., as their colleague. After passing the Entrance Examination, when I joined the Metropolitan Institution, I saw Acharya Prafulla Chandra now and then in college functions and enjoyed both his witty and serious lectures. In his costume and gestures he was unpretentious, even ungainly. But he gained our heart by his convincing arguments, coupled with a genuine love for our mother country. Likewise, he won the deep admiration of his great contemporaries, viz. Rabindranath, Mahatma Gandhi and Ramananda Chatterjee. His first life-sketch was published in the Bengali magazine *Pradip* (1897-98), edited by Ramananda Chatterjee. In *Prabasi* (first published in 1901) and *Modern Review* (published since 1907), have been published many valuable notes and articles by Dr. Rây. These deserve a special study as they give his views on life and events. In the opening issues of the *Modern Review* (1907-08) we find a very suggestive article: *The Pursuit of Chemistry in Ancient India* (February 1907). There Dr. Rây refers to the Mehrauli Iron Pillar (400 A.D.) near Delhi and the huge iron girders at Puri-Konarak (1000-1200 A.D.). They testify to the development of the Hindu science of metallurgy. The steel from which the Damascus blades

were made by the Persians was also of Indian origin. In 1050 A.D. Chakrapāni was the court physician of Nayapāla (of Ganda-Vanga) who sent to far-off Tibet our Bengali sage Dipankara. The Tibetan tantras (alchemy) of Dipankara were partly used by Dr. Rây (1907-10).

The Editor of the *Modern Review* noted that Dr. Rây's *History of Hindu Chemistry* Vol. I had already won the approbation of western scientists and remarked that its second volume, enriched by the appendixes of Dr. Brojendra Nath Seal, would bring the author, world-renown. Prof. Sylvain Levi and other western orientalists became convinced that Hindu philosophy and Dr. Seal's book on *Positive Sciences of the Ancient Hindus* deserved careful analysis. Dr. Julius Jolly of Würzburg wrote on Hindu medicine, expressing the same view, and we know now that the commentator on Chakrapāni, Sivadāsa, quoted from *Lohashāstra* (metallurgy of iron) attributed to Patanjali (2nd century B. C.) and from Kautilya's *Arthashastra* (3rd century B. C.). These treatises were well-known in India as were the works of Charaka, Susruta and the renowned chemist-philosopher, Nāgārjuna. Materials from ancient Sanskrit texts and also from Jaina, Prakrit and Buddhist Pali books have been analysed in the revised edition of Dr. Rây's *Hindu Chemistry*, edited and rewritten by Prof. Priyada Ranjan Rây. The Indus Culture of chalcolithic type has pushed back the history of Copper Age beyond 3000 B. C. synchronizing with the dawn of technical sciences in Egypt and Mesopotamia. While in Paris (1920-1923) I found many appreciative references to the works of Dr. Rây. He was deeply moved by the encomium of Prof. M. Berthelot, a true pioneer in the studies of the Greek, Syriac and Arabic alchemy, etc. Berthelot died without seeing the second volume of Dr. Rây's book.

From Paris I sent to the *Modern Review* my papers on the plays of Molière (on the occasion of his tercentenary) and my articles were so much appreciated by Acharya Rây that he noted them in his diary and, on my return to Calcutta, blessed me with a loving thump.

I kept in close touch with Dr. Rây who was deeply interested in my cultural tours and exploration of Greater India. He was our patron (1931-1944), and after the expiry of the terms of the first two Presidents (Prof. Jadunath Sarkar and Pandit Haraprasād Sastri), Acharya Rây remained our President till his death in 1944. He was predeceased by his friends Rabindranath (1941), Nilratan Sircar (1943) and Ramananda Chatterjee (1943). I heard many things from them about Acharya Rây which I recall now during the centenary year. I recounted them in my address at the Senate Hall, presiding over Acharya Rây's birth-anniversary. In the same hall (alas! now demolished) we presented (1932) to Acharya Rây his commemoration volume.

I accompanied him to Berhampore to visit the Krishnath College



where I lectured with my coloured lantern slides on Greater India. It was very much appreciated by Dr. Rây and our host Maharaja Manindra Chandra Nundy. Then we visited the tomb of Siraju-d daula, the last independent ruler of Bengal and saw other relics of the Murshidabad palace. I was amazed to find in Acharya Rây not only a savant in chemistry but a great connoisseur of art and literature; for he recounted how avidly he read not only western literature but also the creative writings of Bankim Chandra (1838-1894) and of Madhusudan.

I heard from Acharya Rây and his friend Dr. Nilratan Sircar how they organized in Calcutta the first Science Club with the following, among others, as members—Dr. J. C. Bose, Rambrahma Sanyal (zoologist), Dr. Nilratan Sircar, Principal H. C. Maitra, Dr. P. K. Acharya, Ramananda Chatterjee and Prof. S. C. Mahalanobis. They were members of the Brahmo Samaj which Dr. Rây also joined and served for years. The progressive youths of those days, including Naren Dutta—later Swami Vivekananda (1863-1902), were members of the democratic Sadharan Brahmo Samaj (founded in 1878). Dr. Rây's father (as reported) hoped that his son would set an example by marrying a widow, following the lead of Pandit Iswar Chandra Vidyasagar. This did not materialize. Nevertheless, Dr. Rây, though a bachelor, was always a champion of women's education and emancipation. Throughout his life, he upheld the Brahmo Samaj and supported all liberal causes. I still remember how he saved the City College in one of its crises.

Who does not know how much, every month, Dr. Rây spent for indigent students out of his earnings? I found his Science College room always accommodating needy students. They got not only their college fees but also shared the frugal meals of Acharya Rây. He was not only "Doctor of Doctors" (as he justly claimed) in the realm of chemistry, but he also spent every month to the last pice his earnings for the support of the students of his college and of other colleges as well. They followed his lead in organizing relief work to save men, women and children from famine, flood, etc. This utter selflessness and philanthropy made Acharya Rây, hero of all India fame, and Mahatma Gandhi respected him as his elder brother. As early as 1901 (December) in the Calcutta Congress Gandhiji contacted Dr. Rây (then only 40). From Calcutta Gandhiji tried to visit Swami Vivekananda, but Swamiji was very ill and expired (1902) a little later. His Irish disciple Sister Nivedita (1866-1911) was a loyal friend of Dr. Rây and of Dr. and Mrs. J. C. Bose. Her *Civic Ideals* and other books were dear to Dr. Rây. He was a lifelong fighter for freedom (political, economic and social) and his close collaboration with Mahatma Gandhi (1901-41) should be specially studied. Their correspondence, etc. should be edited and published anew as I did with the correspondence between Tolstoy and Gandhi. There was something Tolstoyan about Acharya Prafulla Chandra, who appreciated Tolstoy's food-work equation and who yearned



to make us learn the value of labour. Hence his caustic address to Bengalis in *Bengali Brain and its Misuse*. The great scientist believed in *charkha* and wore till his last days hand-spun clothes.

Dr. Rây as a student in Edinburgh wrote a pamphlet on *India before and after the mutiny* (1888). We tried but failed to get a copy of it so far. I remember Dr. Rây saying that his book *Essay on India* was well-reviewed in the *Scotsman* and other papers. In the University College of Science he spent almost the last 30 years of his life. I brought to him there many distinguished visitors including the Controller of Traffic in Dangerous Drugs of the League of Nations, Dr. Duncan Hall. He was full of admiration for Dr. Rây who combined his scientific research with humanitarian activities. The veteran social worker and journalist, Krishna Kumar Mitra, was with me during that interview. Dr. Rây asked me also about the Radium Laboratory (Paris) of *Madame Curie*, who with Dr. J. C. Bose was a member of the Intellectual Co-operation Division of the League which collapsed before the Second World War began its tragic course. Acharya Prafulla Chandra expired in 1944. Within a year, the War ended and hope dawned with the birth of the United Nations and the UNESCO. But what we lost in Acharya Prafulla Chandra can hardly be filled up. Yet we hope that from on high above he sends on the occasion of his birth-centenary the love and blessings to his countrymen.

He was a great lover of Shakespeare as I felt after reading, at his order, a whole play on our way back from Allahabad (where he was the guest of his beloved pupil Dr. Nilratan Dhar) to Calcutta. Our Chemist-Shakespearean should be remembered on the forthcoming 400th birth-anniversary of the "Swan of Avon". His 300th death anniversary (1916) was worthily recorded by Rabindranath in his topical poem *Shakespeare* in the *Eternal Melody of Balaka* ever flying, beyond the supernal heights of the Himalayas, to our Beloved of the great beyond. Acharya Prafulla Chandra gained immortality by his service to the society and the cause of science.

Our profound homage to him.

ACHARYA PRAFULLA CHANDRA

By JATINDRANATH RAY

Acharya P. C. Rây was my uncle. He was the third son of Harish Chandra Rây of the village of Raruli in the district of Khulna (now in E. Pakistan). Harish Chandra had five sons and two daughters. The names of the sons are : Jnanendra Chandra, Nalini Kanta, Prafulla Chandra, Purna Chandra and Buddhadev (*alias* Gopal). The names of the daughters are : Indumati (Ghosh) and Belmati (Rây).

Of the brothers and sisters of Acharya Rây, my father Jnanendra Chandra was the eldest. He was a pleader at Diamond Harbour Munsiff's Court. The second, Nalini Kanta, was a doctor and the fourth, Purna Chandra, managed the ancestral properties of our joint family. The youngest brother Buddhadev died at a very young age in 1903 or so. Acharya Rây's sister Indumati died about 10 years ago and the other sister died in her childhood.

Harish Chandra (father of Acharya Rây) was fairly educated. He was well-versed in many languages such as Sanskrit, Persian and Arabic, besides English and Bengali. He was a public-spirited man with very liberal ideas. In short he was a great social reformer. Prafulla Chandra's mother, Bhuban Mohini Devi, was also a gifted lady with benevolent disposition. Acharya Rây's father died in 1894 and his mother in 1904 or thereabouts.

Prafulla Chandra started his education in village *pāthshālā* (primary school) when he was only 4 to 5 years of age. Then he got himself admitted into the village M.E. school at the age of 9. After finishing his studies in the M.E. school which was founded by his father, Prafulla Chandra and my father came over to Calcutta. He got himself admitted into the Hare School. While in this school, he fell victim to a very bad type of dysentery, some time about 1874. As an after-effect of this malady his health was shattered and he had to discontinue his studies for more than one year. Then he joined the Albert School, and passed the Entrance Examination from this school. After passing the Entrance Examination, he took his admission into the F. A. class in the Metropolitan Institution. While still in the F. A. class, he began to prepare himself for the Gilchrist Scholarship Examination and simultaneously learnt Latin, French, German, and Sanskrit languages. After



ACHARYA PRAFULLA CHANDRA RÂY

passing the F.A. Examination and obtaining the Gilchrist Scholarship he started for the U.K. There after graduation in science and then completing researches in chemistry for over six years under Prof. A. Crum Brown, he was admitted to the D.Sc. degree of the Edinburgh University.

In his early life while in the village *pāthshāla* and the M.E. school, Prafulla Chandra was a very naughty boy and was careless about his health and food. At times, he used to move about riding on the shoulders of Muslim servants called *mandes* and would occasionally swing himself after climbing the betelnut palm. He used to plant fruit trees such as coconut, betelnut, mango, etc. with the labourers. The trees planted by him are still adorning the garden of our family house. In his early boyhood he learnt the practice of rowing which he continued even when pretty old. He was also a good swimmer.

In early boyhood before he came to Calcutta and subsequently during his biennial visits to the village home, he used to call at the houses of all the villagers irrespective of caste or creed, rich or poor, where he was received with great enthusiasm. He also discreetly enquired about the financial condition of the poor people in the village and helped them in their distress and need. He came in close contact with Pandit Iswar Chandra Vidyasagar in his early life and the ideals of the Pandit impressed him greatly and helped him to mould his character.

Although our family members were Hindus by faith and religion, Prafulla Chandra was, however, very liberal in his views like his father. While at the Albert School, he came under the influence of Brahmananda Keshab Chandra Sen through his brother Krishna Behari Sen, rector of the school, and was gradually attracted to the Brahmo Samaj. Subsequently he became an active member of the Samaj. *Ekeshwarbād* (monotheism) was his religious conception and he was a believer in *one God and one Nation*.

In family circles, he was a very affectionate man. He used to come to our residence at Gobinda Ghoshal Lane very frequently and talked with my parents. At times, he asked my mother, Hemlata Devi, to cook dishes with *bari* (dough-bits).

Dried mangoe juice was also his favourite delicacy. He used to gossip with my daughter and other relations and enjoyed the meals and talks very much.

Acharya Rây was very soft in heart. After the death of my youngest uncle, who predeceased him, I went barefooted to see him at the quarters of Shri S. C. Roy of the Aryasthan Insurance Co. On seeing me barefooted, he asked me the reason of it. As soon as I broke the sad news, he burst into tears and embracing me cried aloud like a boy saying:

"Purna passed away before me." He was then in a bad state of health. It was with great difficulty that I consoled him.

Acharya Rây passed away on the 16th of June, 1944, at the age of 83. As desired by him earlier, his last rites were performed by me.

Apart from being a great scientist, philanthropist and social worker, the Acharya was well-versed in Sanskrit. In his early days, he read Sanskrit under the guidance of Pandit Harish Chandra Kaviratna, then a professor of Sanskrit in the Presidency College.

One day, when he came to our house and was talking about religious scriptures, he incidentally asked me what I understood by reading the Upanishad. He told me that the whole of Upanishad is condensed in the verse :

ॐ ईशावास्यमिदं सर्वं
यत् किञ्च जगत्यां जगत् ।
तेन त्यक्तेन भुञ्जीथा
मा गृधः कस्यसिद्धनम् ॥

'In the heart of all things, of whatever there is in the Universe, dwells the Lord. He alone is the reality. Wherefore, renouncing vain appearances, rejoice in him. Covet no man's wealth'.

ACHARYA RĀY AS I KNEW HIM

By J. N. RAY

I saw him first at Rajshahi where he had gone to attend the annual meeting of the Bengal Literary Conference. I was not yet ten but I had read about him in the daily newspapers. Those were the stirring days of the Swadeshi Movement. We had read that two great scientists of Calcutta were doing their best to put India on the scientific map of the world. We were votaries of this movement and a few of us, all about ten years old, had clubbed together to prepare soap and writing-ink on a waste piece of land near where we lived. Our efforts resulted in a treacle-like product which nobody would even look at. Our pocket-money was fast running out. We thought here was the opportunity to consult the great savant and save our venture. Alas! we were not allowed to go anywhere near him, nor did our offer of enrolment as volunteers met with success, as we were considered too young. Many of us made up our mind that some day we would be his pupils. The writer was the one whose ambition was fulfilled a few years later.

The first day I attended his lecture was a landmark in my life. He began with some pleasantries directed against some students. Then he gradually drifted on to the subject-matter of the lecture which was illustrated with many striking experiments and enlivened with the story of its historical aspect. Everyone listened to him spellbound. He never lectured to the second and fourth year classes. These he left to the junior lecturers. His object was to grind in the fundamentals. This is probably the reason why so many brilliant pupils came out of his chemical nursery.

During the summer vacation of 1915, I decided to stay in Calcutta. As I had nothing in particular to do, I used to roam about the corridor outside his laboratory and watch him doing gas analysis, which fascinated me. He caught me spying and was annoyed to see me wasting time. He called me in and assigned me the task of recovering silver from bottles full of silver residues collected over some years. I worked very hard till lunch time when he came to my seat and asked me to have lunch with him. He was suffering then from some tooth-ailment and could not chew meat. He had the gravy with bread and I had a plateful of meat. By the end of the day I was able to recover quite a few ounces of silver. He was very pleased and asked me to accompany him to the maidan. There I was introduced as a new recruit to the Maidan Club. If my memory serves

me right, the persons present were Satyananda Bose, Principal Girish Chandra Bose, Devaprasad Ghosh, Dr. D. N. Mullick, Kaviraj Nagendra Nath Sen and a few others. He used to encourage us youngsters to talk. This, I discovered later, was his device to make us familiar with the world-events. This first day when I had close contact with him was a red-letter day for me. Much that happened later on, I can trace to the happenings of that day.

I have mentioned that he used to illustrate his lectures with numerous experiments. There was a sad sequel to one of them. One day he sprinkled some moist nitrogen tri-iodide on the steps of the gallery. This substance causes mild explosion when trod upon. There was a pandemonium for a few minutes and we all enjoyed the fun. It occurred to the present writer to prepare this substance and sprinkle it on the main staircase which was mostly used by the 'arts students' and 'arts professors'. There was the inevitable pandemonium, but the matter was reported to Chandrabhusan Bhaduri who was the *de facto* ruler of the department. He quickly traced the culprit and took the writer to Dr. Rây and recommended severe punishment. Dr. Rây was busy doing some experiments and asked me to wait in a corner of the laboratory. Hours passed and he seemed to have forgotten about the matter when Chandra Babu came again to see what punishment I had received. Seeing the position, Chandra Babu suggested that I should be handed over to the police. Dr. Rây assured him that he himself would deal with the matter. After some more time he asked me to accompany him to the maidan in his carriage. On the way he talked about a few subjects not in any way connected with iodide of nitrogen. Suddenly he asked me if I had waited to see its effect on the 'arts professors' and burst out laughing. Then he suddenly became grave and asked me how much iodine I had used. On being told that about half a pound of iodine had been used, he became quite concerned and told me that it was by luck that I had not been blown up to bits. He told me that it was dangerous and asked me not to do it again.

While still an undergraduate, I made the acquaintance of N. R. Dhar, J. C. Ghosh, J. N. Mukherjee, R. L. Datta and other senior students. They were extremely helpful. An atmosphere of friendliness grew up and therefore it was no wonder that a school of chemistry round Dr. Rây soon developed.

After he joined the University College of Science, we also left the Presidency College after completing our courses. I was given a bench in his private laboratory to work. Now I came more intimately in contact with him. I had to interview his callers before letting them in and also had to keep his personal accounts and helped him with his correspondence. I was instructed not to spend more than Rs. 40/- a month for the daily bazaar. It was a meagre allowance with so many mouths to feed!



His daily routine would begin at 5-30 A.M. and he would devote an hour or so to his study. He used to read Shakespeare daily at this time. After a very frugal meal he would be in the laboratory before nine and then spend an hour or so to attend to his correspondence. The work in the laboratory used to begin at 10 a.m. Some of the research students would be working before then. He went upstairs for lunch at about 1 p.m. and rested for a while before coming down. After 4 p.m. he would leave the laboratory to visit the Bengal Chemical or some other organization with which he was connected. After a relaxation for an hour or so at the Maidan Club he would take a sparing meal on returning home and retire for the night. On Sundays, he would receive callers, many of whom used to get financial assistance from him. It was my duty to interview these callers before letting them in and dispose of many of them myself. One Sunday, it was getting on to 1 p.m. when a gentleman arrived and wanted to go in. I told him that it was time for the Acharya to go for his lunch and it would not be possible for him to see him that day. The gentleman disclosed that he was his second cousin (maternal uncle's son) and I thought that I might let him in. Acharya Rây was furious, as this meant pushing his programme back. In explanation I told him about my difficulty; he retorted that he would not break his routine even for *babato-bhai* (own brother), never mind *mamato-bhai* (maternal cousin).

But he did break his routine under exceptional circumstances. It happened soon after this incident. One day, when H. K. Sen was to leave for England, the whole research staff had gone to the Howrah station to see him off. I was also to go, but I had a crystallization to complete and thought of doing that first. Another student stayed behind to accompany me. When he saw the time was nearing for the departure of the train he asked me to hurry up. In my haste I heated the flask containing toluene over the free flame and it caught fire. I tried to save the contents by putting the palm of my hand over the mouth of the flask so that owing to lack of air the fire would be extinguished, but the flask cracked and I was covered up with boiling toluene and became badly burnt. My fellow-student* quickly hailed a taxi and removed me to the Campbell Hospital. Acharya Rây was away at that time and returned to the laboratory rather late in the evening.* He went to the hospital to see me at about 11 p.m. I requested him to go back as I knew that he went to bed early but he would not leave till I had fallen asleep. Next morning he was back at the hospital very early to enquire how I was. This meant a complete upset of his time-table and I told him so very apologetically, but he assured me that the occasion demanded a breaking of the rules.

It was my duty also to accompany Dr. Rây to various out-station places when he had a lecture engagement. I used to take down the points he made and on return to Calcutta would write out the article for some monthly periodical. Several of these articles were published and he made due acknowledgement of my help. He introduced me to different people



as his "Ganesh". "Ganesh" was the scribe of Vyasa when he composed the Mahābhārata. This name stuck to me but I did not relish it very much at that time.

Once I had accompanied him to Chandernagore where he had to open a library donated by Harihar Sett, an ex-Mayor of the place. We arrived there in the early evening and stayed with Sri Sett, who had a palatial house. There was another student with me. A most sumptuous meal was served for repast. We had looked forward to a feast, but we had to sit with him for the meal. He would not himself take anything except a few vegetable dishes, and we had to do the same. Our host discovered that we were disappointed at such a meal to pass by without our doing full justice to it. He decided that we should take our meals apart. Next day he advised us to wait till Acharya Rây had finished his meal, and so we did not join him at the table. He wanted to know where we were and he was told that we would have our meal a little later. He saw through the game and sent for us. We were told that Acharya Rây was not *apāngteya* (outcast) and were therefore asked to sit with him. Thus another magnificent meal was lost to us! He then decided to teach me a lesson. He knew that I was fond of eating but had no knowledge of cooking. We went to Gaibandha where he had to preside over the All-Bengal Teachers' Conference. On arriving at the place he told the organizers that he would like to put up in the school building as the school was closed. If a Primus stove could be secured his pupil would do all his cooking. He knew that I would not be able to do anything more than boiling a few things. We had forgotten to carry with us his biscuits for the tea. I cooked him some *nimkis* which he watched me doing and was very pleased. But alas! the main meals had to be boiled vegetables and rice till some local lady decided to send some *sukto* (a special vegetable dish with bitters) and such other dishes palatable to him.

I have mentioned that I used to write up articles for him. One day we were preparing the manuscript for *chā pān nā bish pān* (tea drinking or poison drinking?). I finished it at about 3 p.m. He was to go to the Bengal Chemical, and his carriage was ready. After my work I felt tired and joined some friends in the dark-room of the physical chemistry department for some tea. As I knew he would be going soon, I did not take the precaution of closing the door after I entered. Suddenly he appeared and we were caught red-handed. To me, who had just finished writing about the poisonous drink, he had something very special to say!

At this time an incident occurred which is worth recording. It was about the close of the month and money had nearly run out. He wanted me to be economical. However, to our relief an invitation came for him to attend a wedding at the house of an eminent barrister of Calcutta. He ordered the biggest tiffin carrier to be got ready for the evening. It was



his custom to attend these functions but he did not partake of any food there. Invariably he was given something to carry away with him. We used to get a share of the sweets that were collected. We eagerly looked forward to these invitations. On this occasion, after he came back, we found that the tiffin carrier had a couple of *rasogollas* and a few *luchis*, and nothing more. No meal had been cooked for him that night. He wanted me to go next door (Sir J. C. Bose's house) and enquire discreetly at the kitchen if they had any spare food. After ascertaining the fact, I was to see Lady Bose, but on no account I was to see her first. As ill luck would have it, Lady Bose saw me from her room talking with the cook, and wanted to know who I was and what was my business. She had perhaps seen me with Acharya Rây but was not able to recognize me. She thought I was some kind of a vagabond and nearly told me so, as I was not able to give a coherent answer to her questions. When things were looking very dark for me, I blurted out the truth. She quickly got a tiffin carrier ready and proceeded to the Science College to deliver it with some home truths to Acharya Rây. Acharya Rây was shocked to see Lady Bose at that hour with the food and gave me very dark looks. Lady Bose told him that she had repeatedly suggested his meals being sent out from her house, but Acharya Rây had always declined it for no apparent reason. Now he must have all meals sent to him daily. Acharya Rây thanked her for the help she gave that evening; he explained the situation that owing to several misunderstandings the meal had not been cooked, but he assured her that he would take good care to see that such misunderstanding would not recur in future. The next morning I had to hear a lot about my tactlessness!

I used to look after Acharya's personal collection of books. One famous scientist borrowed a book for 3 days. A slip was kept in the shelf indicating the name of the borrower and the expected date of return. This gentleman returned the book after 3 weeks. Acharya Rây noticed it but did not say anything then. The same gentleman some time afterwards came again to borrow a book. The Acharya told him that his day was equivalent to a week but allowed the book to be lent. This time the book came back in time. Acharya Rây told the writer that the borrower of the book was an excellent scientist but he would do well to rectify some defects he had. He had been able to rectify one but there was another which required attention. He never closed the door after he entered the room. I was told to point that out to him. I did not like to speak on a matter like this to one who was senior to me. As ill luck would have it, soon afterwards this gentleman entered the room and did not close the door. A gale was blowing at that time and the door made a loud banging noise as it was left open. After the gentleman left I was told that my disobedience very nearly cost the university the price of a few panes of glass. It was just luck that no panes were actually broken. This gentleman was ultimately told about his lapse, but I do not think that



it had any effect on him. In correcting us in small matters, he thought we would overcome these minor national defects.

He was a modest man and, as is well known, he used to put on simple dress. Once he was going to Dacca. He loved to travel on the front deck as he got plenty of fresh air which he liked. For this purpose, he had to buy a first class ticket between Goalundo and Naraingunge. This time as he was going up the stairs he was stopped by the *sukhani* (a senior mate) who mistook him for a poor moslem of the peasant class. He had a *lungi* on. He was told that the *Mia-bhai* (Muslim brother) should use the other staircase which would take him to the third class deck. He used to enjoy such situations. But there were occasions when he would flare up if he felt that national prestige was involved. Once some drunken soldiers invaded the serenity of the Maidan Club which used to assemble every evening under the statue of Lord Roberts. We were ordered to clear out as they thought we were loafers. The stand which Acharya Rây took sobered the drunken soldiers and we were left alone. Once when going to Darjeeling he was waiting for the train to come in and was sitting on his luggage. The bearer of a sahib (European) mistook him to be a fellow servant and got into conversation with him. He asked him if his sahib (European master) was also going to Darjeeling and what sort of *munib* (master) he had; what was his pay and if the job was good, etc. In the meantime the sahib arrived on the scene and recognizing Acharya Rây warmly shook hands with him, much to the discomfiture of the bearer.

Time came for me to leave. I had offers of three posts at the same time from Dacca, Bangalore and Lahore. I consulted him and he advised me to accept the post at Lahore. On looking back in retrospect, I find this advice was very sound. Even after we separated, I used to consult him on all problems of life. He was always very prompt in replying. In 1940, I was asked to go to Delhi to take over the Directorate of Drugs and Dressings. I was reluctant to go as I felt that this would be the end of my scientific career. In great perplexity I sought his advice. He promptly wrote back that I must accept this post as he could read the writing on the wall and could see the shape of things to come. He thought that personal consideration of career should not obscure my vision. It was a most stimulating letter. Unfortunately I have lost it.

After I accepted the post at Delhi, I used to come frequently to Calcutta and meet him often. He was most interested to know how supplies were being developed in India. Once there was an indent for bandages, the cloth requirement of which if put end to end would stretch from Bombay to Southampton, i.e. over 6700 miles. The mills were fully booked, and it was an urgent demand. I discussed with him if I should get khaddar (hand-spun and hand-woven) approved as a bandage cloth.



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He was enthusiastic. Specifications were duly drawn up and the Army approved the material. Orders started pouring in. I met him after about a year. He remembered what had been done about khaddar, but felt a bit dejected. Khaddar dealers were making good profit and some evils of capitalism were creeping in to pollute the sanctity of khaddar. We started talking about insincerity which had even invaded the field of the scientists. I mentioned an instance. It happened in 1938 or 1939. Jawaharlal Nehru was a *persona non-grata* with the Government at that time. He visited Lahore. I did not know him personally, hence I did not feel enthusiastic. But a brother scientist came to my house late one night in his car and asked me if I would accompany him to see Nehru; as I did not know Punditji personally and I was not very well that evening, I declined to go. This gentleman tried to persuade me but I was really not well enough. Then he asked me if he could borrow my car. I let him use my car. He left his own car in my compound which he collected late in the night. My wife thought it very strange that my car was taken when his was in a running condition. The mystery was cleared up next day when the police came to enquire what I was doing last night. Acharya Rāy burst out laughing when he heard this story. He became afterwards grave and told me that the danger to Indian science lay in these sun-worshippers.

The last time I saw him was a few months before he passed away. I called on him as usual and he asked me how the War was going on. I told him that recently, I had been told by my chief that I had to take all major decisions myself as we will soon be called upon to carry on our affairs ourselves; the British will quit whether they won or lost the War. This gentleman was a personal friend of Lord Linlithgow and hence he knew the way things were going. When Acharya Rāy heard this, he sat up in bed as he realized that the dream of his life, independence, would come sooner than most people expected. He wanted me to come closer as he could not see my face owing to failing eyesight. He felt my face with his hands. I sat with him for some time but when the time came for me to leave, he again passed his hands over my body. I was overcome with emotion.

Alas! it was not possible for me to come and see him again before he passed away.

One hundred years ago he was born. The country would celebrate the anniversary of his birth again and again. He now belongs to Time. But the number of those, who had the privilege to work with him and were his pupils, will diminish every year. Before he becomes a myth, it is our duty to record for posterity all the known facts about him, so that a correct assessment of the man could be made by future generations.

ACHARYA PRAFULLA CHANDRA RÂY

By S. P. RAY CHOUDHURI

I had the great fortune to come into close contact with Acharya Prafulla Chandra Rây for more than 10 years while I was a research worker in chemistry at the University College of Science and Technology. I was a student of Professor J. N. Mukherjee who was a student of Acharya Rây. Research workers like us were called by the Acharya as his 'chemical grandsons'.

Acharya Prafulla Chandra wanted that research workers in chemistry should spend as much time as possible in the laboratories and that adequate facilities for the same should be provided. Under his advice, for saving time, meals were prepared in his living room at the University College of Science and Technology for quite a few of the research workers who used to begin their laboratory work early morning and continue till late evening with a short break for lunch and tea. He always encouraged the young research workers in science for going for their doctorate, and when any one did some good work he used to specially send for him and cheer him up for still better efforts. If any good worker, not only in chemistry but in other branches of science, experienced difficulty for lack of space or equipment, he tried to remove it as quickly as possible, sometimes even from his own grant. A large number of students and young workers were greatly benefitted by such benevolent acts of Acharya Prafulla Chandra. He often used to say that he wanted his students to excel him and he himself would like to be reflected in the glory of his students. Acharya Prafulla Chandra was indeed the Father of Indian Chemistry as it was his inspiration, guidance and example that led to the formation of the Indian School of Chemistry.

Acharya Rây himself was a great admirer of ancient Indian culture and he used to encourage close acquaintance with the history of chemistry. Thus, at his suggestions a series of articles under the joint authorship of Acharya Prafulla Chandra and the writer was published in the Bengali monthly *Prabasi*, describing lives of renowned scientists like Arrhenius, Pasteur, Cavendish and Faraday. As a teacher of chemistry Acharya Rây was very keen on preventing wastage of laboratory chemicals, gas, water, etc. He would frequently remind us that in heating water-baths although initially a big flame might be used, but as soon as the water would begin to boil the flame should be reduced. For, the amount of heat, needed



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to maintain the water in the bath in a boiling condition, is only the latent heat of water. He would also insist on the recovery of costly chemicals from precipitates in the filter papers and could never tolerate wastage in any form.

Acharya Prafulla Chandra was deeply interested in human welfare and in the time of flood and famine he took the lead in organizing relief work by collecting and distributing money, clothes, medicines, etc. His pupils, who were closely associated with him, were inspired by his example of feeling for the suffering humanity and devotedly took pains to assist and follow their great teacher in his work.

ACHARYA PRAFULLA CHANDRA AND NATIONAL EDUCATION

By H. L. Roy

Acharya Prafulla Chandra's name has been a household word in Bengal since his return to India after getting the D.Sc. degree (chemistry) from the University of Edinburgh. Dr. Aghorenath Chattopadhyaya was the first Bengali to achieve this honour, but as he stayed away from Bengal since his return, he was not very well-known to the Bengalis. Later on, Acharyadev became known throughout India because of his work in chemistry and also because the students he had trained in the subject spread all over India bearing his flag.

Acharyadev was a man of various interests. Though chemistry was his first love, his interest in English and Bengali literatures and history was no less; he took part by words and deeds in social and religious reforms. He had a burning desire for the betterment of the country in every sphere of life. In the political field he had to remain outwardly inactive because he was then in Government service.

In the stormy days of the Swadeshi Movement of 1905, the National Council of Education, Bengal, was brought into existence to impart education on national lines and under national control. Politically such an organization was necessary to provide education to young men of various schools and colleges, who were penalized by the then Government for taking part in the political movement against the partition of Bengal, which was agitating the whole province in those days. A band of idealists, who wanted reform in the educational system, took full advantage of the movement and founded the National Council of Education, Bengal, on the 11th of March, 1906. Reforms in liberal education were necessary, because at that time the Indian history and the Indian philosophy did not find any place in the syllabus of the Calcutta University; English was the medium of instruction and Bengali language and literature were almost totally neglected. Similarly the Government did not try to spread technical education amongst the people except a little that was needed for its own services. In the schools no attempt was made to teach elementary sciences and the use of tools and instruments. The thoughtful people amongst the educationists, so long trying in vain to bring about changes in this direction, took hold of this opportunity and the record of their hard work will be found in the syllabus prepared for its schools and colleges by the National Council of Education. Acharyadev's direct



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and indirect connexions with this National Education Movement may not be known to many.

Acharya Prafulla Chandra was a true and sincere friend of some of these educational reformers. Though because of his connexion with the Government he could not openly lend his name as a founder-member of the Council he helped his friends with ideas and ideals. Nevertheless, he served as a paper-setter and examiner in chemistry for the colleges of the Council. He always rendered ungrudging help in the framing of the syllabus, the course of studies, and the schemes of examinations.

After his retirement from the Government service he formally became a member of the National Council of Education, Bengal, in 1919. In 1922, he was elected the Honorary Rector and in 1924, the President of the Council. He served the Council in that capacity till his death.

Many of the teachers and students tried, as far as they could, to follow his ideal of "Plain Living and High Thinking" and of his spirit of sacrifice and social service. Twelve years after his death in 1956, the National Council of Education, Bengal, was transformed into the present Jadavpur University. But even before that transformation, in grateful remembrance of his services to the Council, the present Chemical Engineering building was named after him in 1952.

REMINISCENCES

By MEGHNAD SAHA

After the last Great War (World War I) there was a great rush of people going to England. The Scindia Steam Navigation Co., one of the pioneer Indian shipping concerns, had engaged a vessel—*Loyalty*—to take passengers to Europe. It was in one of her trips that Sir P. C. Rây made, I think, his seventh voyage to England. The passengers were mostly Indians; amongst them many have become subsequently famous, e.g., Dr. Jivraj Mehta of Bombay, Prof. N. K. Siddhanta of Lucknow and Dr. B. S. Guha, the anthropologist. I was also amongst the passengers. But most of the passengers were raw boys from Bengal, the Punjab and other provinces of India, going to England for study. A few I.C.S. officers were also there, because they could not get passages in bigger and more comfortable boats. After we had neared Aden, there was a complaint that this Swadeshi venture was a failure,—the food was bad, the cabins were ill-kept and the passengers were not well cared for. This was being freely talked about, and one day when Sir P. C. Rây was on the deck talking to some of us a petition to some shipping authorities, purported to be given by the passengers, was brought to him. It stated that the Scindia Steam Navigation Company should no longer be allowed to run the service, as they had made no arrangements for the comfort of the passengers. Those who brought the representation to him were mostly young boys from the Punjab, with some Bengalis as well. They requested Sir P. C. Rây to put his signature to it. He read the petition once, twice, thrice and then asked the boys whether any of them had ever travelled to Europe before. They said "No". Then he asked them how then did they know that the arrangements on this particular boat were worse than those on purely British or any other European liner. They said that many of the English passengers had told them so, and they particularly mentioned the name of an English member of the Indian Civil Service who was a fellow passenger. Sir P. C. Rây said: "My young friends, this is the seventh trip I am making to Europe, and before this I had travelled by the P. & O. and ships of other European companies; I can assure you that the food and other arrangements here are as good as on any British or other foreign boat." Then the boys had a long argument with him but ultimately they confessed that they were actuated to this course of action on the advice of one of the European passengers. Sir

† Reproduced from *The Calcutta Municipal Gazette*—Sir P. C. Ray Memorial Supplement, p. 26 (24 June, 1944).



P. C. Rây then asked "What am I to do with this petition? Can I tear it and throw it into the sea?" They all agreed to this and he tore the petition and threw it overboard.

In certain quarters in India, Sir P. C. Rây has been known as a parochial patriot loving only Bengal. This incident shows that his patriotism was not confined within such narrow limits. A Swadeshi venture, whether it was from Bengal, or Bombay, was equally dear to his heart.

Sir P. C. Rây was once invited to Lahore to deliver a course of lectures on Hindu Chemistry, a subject which he had made specially his own. By his researches in ancient Sanskrit literature, he published, in two large volumes, the *History of Hindu Chemistry*. These two volumes show his deep erudition and his perseverance in dealing with a very unknown phase of the activities of ancient India in the domain of science. While Sir Prafulla Chandra was addressing the Lahore University, there was, among his audience, a young Englishman who was a professor of—
—in one of the local colleges. He had just arrived in India and was apparently not very much impressed with conditions here. Sir P. C. Rây was talking of the chemical processes practised by the ancient Hindus. The apparatus which they used were not very striking. They used to carry out processes like distillation in very crude earthen pots heated by wood-fire. While he was exhibiting those processes with the aid of diagrams, the young Englishman could hardly suppress his sneers. The old man had noticed it and was apparently annoyed. After the apparatus had been described, he took in his hand a lump of *Makaradhwaja*, which is resublimed mercuric sulphide, still prepared by Kavirajas according to old Hindu methods and used as a medicine, sometimes even by European physicians. Sir Purdy Lukis, who was Surgeon-General with the Government of Bengal, would often prescribe it to his patients as a stimulant. Sir P. C. Rây took the lump in his hand and said: "Look here, my friends, with such crude apparatus, the Indians, two thousand years ago, used to prepare such a fine chemical and used it to alleviate human sufferings, and this at a time when the ancestors of our friend over there were eating raw berries and wearing raw hides." The young Englishman's face became red and he darted out of the hall. Afterwards he became a great admirer of Sir P. C. Rây and his other Indian friends.

Many people have wondered how Sir P. C. Rây could live such a great life. He was a permanent invalid and had begun to suffer from dysentery even in his early boyhood. I have seen very few men with such regular habits as Sir P. C. Rây had. As he had never married, he had learnt to depend on himself alone. He would rise very early in the morning, much earlier than any of the numerous students and others who lived with him, and take a stroll round about the corridors of the Science College. His study hours were from the early hours of the morning up



to about 10 o'clock. Woe to anybody who dared to disturb him during his study hours! He would then work in the laboratory up to about 12 noon and then come to his room for his midday meal, take a short rest, and in the afternoon he would again come to the laboratory and finish his correspondence. By about 4 p.m. he would be ready for his public engagements. In the evening he would relax himself in the maidan in the company of a few select friends whose ages ranged from 80 to 15 and who came from all classes and ranks in life. I think this was the secret of his long life and the vast output of work in the various fields. While taking a long journey, say to Bangalore or Bombay, he used to calculate beforehand the number of meals which he had to take and get everything ready, or write to his pupils, who might be on the way, to come and see him in the station with a gentle hint that they should bring something for him, which they very readily did.

He used to tell us that it was at the request of Prof. Berthelot that he undertook the compilation of the *History of Hindu Chemistry*. This took him about 8 to 9 years, and he had to engage a Pundit to pore over Sanskrit manuscripts to find out their meaning, compare their chemical processes with modern processes and also read into historical literature to find out the chronology of the authorities on Hindu chemistry. As a result of these 9 years' arduous work his health had completely broken down, and he was warned by his friend and physician, Sir Nilratan Sircar, to regulate his mode of life. I think these instances will help many of my young friends who take too much liberty with their health and generally, nowadays, do not appreciate early rising. He always used to quote Benjamin Franklin's famous saying—"Early to bed and early to rise makes a man healthy, wealthy and wise"—a saying which he followed to the letter in his own life.

THE GREAT INSPIRER

BY DWIJENDRA KUMAR SANYAL

Forty years back I had the privilege of first coming in contact with Acharya Prafulla Chandra Rây and if I remember correctly it was on July 7, 1922, a date which still flashes before my eyes. Acharya Rây was touring Bengal for preaching the gospel of khaddar and visited our little district town of Faridpur now in East Pakistan. I was then a student of a local school. Although prior to these days it was not expected of students of my age to take active interest in 'movements', but in our time East Bengal was surcharged with the call of the Non-Cooperation Movement. The names of Mahatma Gandhi, Deshabandhu Chitta Ranjan Das, Acharya Prafulla Chandra Rây amongst others, were familiar to every teen-ager. Faridpur was already well-known throughout the country, being the home of the grand old man of India, Ambika Charan Majumdar, who was President of the 31st session of the Indian National Congress held at Lucknow and who happened to be the first President of the Congress belonging to a remote *moffussil* town.

In the evening of July 7, 1922, Acharya Rây was scheduled to address a public meeting at the local Town Theatre Hall. This programme was announced long before his arrival and every one was keen to have his *darshan* and to hear him. Fortunately for me he was staying with a relation of mine and I also had a curious knack of having an easy access to great men, because in those days it was my hobby to collect autographs which was not so common in the twenties as it is today. When I approached him it was afternoon and he was getting ready for the public meeting. The very moment he saw me with a notebook in my hand he enquired about the purpose of my visit. On explaining my intention he readily agreed to give me his autograph. He wrote in my notebook: "All the ends thou aimest at be thy country's and God's". From this one sentence one could fathom his love for the country and his faith in God. At that time little could I foresee that this casual contact would develop into something which I would never forget throughout my life. Acharya Rây asked me to attend the meeting. It was a very crowded one. He spoke on the problem of unemployment and the misuse of Bengali brain, his favourite theme. After the meeting I followed him up to the door of the carriage which was taking him to his host's house. Suddenly, much to my pleasant surprise, he put the garland which he received, round my neck and asked me to accompany him. It was indeed

a great honour. When I left him he told me that next morning I must meet him by 5 o'clock. It was his habit to walk bare-footed in the morning with his inevitable stick in hand. He used to take great pleasure in affirming the age of the stick and the places it visited. During this morning stroll he started putting searching questions to me and learnt all about our family and myself. None but he could bother about a school student. This very brief contact left great impression upon me, so much so that occasionally I was tempted to write to him. Again it was indeed another sign of greatness on his part, which I now realize more and more, to reply always to my letters of school days, however incoherent and amusing the contents of those might have been. In one letter he wrote "I am very glad to learn that the students are wearing khaddar which is a very good sign. If I could come to Faridpur once again I would try to persuade every college student to wear khaddar. Convey my greetings to Ambika Babu". Such was his love and earnestness for spreading the message of khaddar, and his respect for the venerable old man of India.

When I came to Calcutta after Acharya's visit to Faridpur, one day I went with a trepidation of heart to the University College of Science to pay my respect to him, thinking all the while how I would be received by the great scientist. A surprise was in store for me. As soon as I sent my name I was asked to go in. I found him sitting on a big stool in his laboratory surrounded by research students. He gave me an affectionate welcome and started asking various questions. He also asked me to spend one night in the Science College. At first I could not exactly follow him, so unexpected was the invitation. I spent a whole day and wondered how such a great man could live so modestly. Gradually I started realizing that he really represented the true soul of India and was an embodiment of her spirit—plain living and high thinking. His family consisted of some of his research students, all of whom have attained eminence today and hold prominent positions in their respective fields. This was sometime in 1923.

The year 1925 is a memorable year in the history of India. In that year the Bengal Provincial Conference was held at Faridpur presided over by Deshabandhu Chitta Ranjan Das and his address was practically a 'swan song'. The whole town of Faridpur was full of excitement because all the leaders were there including Mahatma Gandhi. Acharya Rây also came to attend this conference as well as to preside over the Provincial Hindu Sabha Conference. It had been just a brain wave on my part to write a letter to the Acharya requesting him to put up in our house during his visit to Faridpur. The organizers of the Conference had already made arrangements for his stay in a suburb of the town, but affectionate as he was he could not promptly reject my invitation. He made enquiries about the location of our house. There was a great deal of tug-of-war between an unknown student and a highly placed Government official who wanted to put his house at the disposal of Acharya Rây. But



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ultimately the Acharya wrote that he would prefer to stay at our house. He asked me to arrange for him "a quiet place, a camp cot, hospital diet, one 'powa' of pure milk in the morning and some small refreshment (*nimki*) to be prepared by your mother." The august guest honoured our family by staying with us and it was a great day of joy to me to have him in our midst. Even today I question myself whether any one else of his eminence would have cared to accept the invitation of an unknown student. It was only Acharya Rây who could do this.

Thereafter, till the middle of 1927 I, more or less, lost contact with him. This was revived when one day I was told by the late Prafulla Kumar Sarkar, the Founder-Editor of *Ananda Bazar Patrika*, that Acharya Rây came to him to enquire about my whereabouts after reading my article which appeared in that paper on the 1st of April, 1927, and of which he collected a few extra copies. This was an article on the "Dependency of India on Foreign Goods" which he wanted to keep ready at hand for reference in his public speeches. I then went to see Acharya Rây in the College of Science and this renewed contact continued till his death. Indeed, in the thirties when I happened to be a regular contributor to English and Bengali papers on economic matters I got all my inspirations from Acharya Rây. He was generous, rather I would say over-generous; otherwise, how could an eminent man like him write to an obscure person after reading the latter's article: "Are you my friend or enemy? If you continue to write articles like this Othello's occupation would be gone". I have kept this letter as a treasure and I consider it as the most valuable of numerous gifts I received from him from time to time.

In 1930, an organization known as Swadeshi Prachar Samity was set up in Bengal with Acharya Rây as the president and Sri Gangabehari Lal Mehta as one of the honorary secretaries. Sri Mehta was then a Branch Manager of Scindia Steam Navigation Co. Ltd.; a few years back he has retired as Ambassador of India in the United States of America. At the instance of Acharya Rây I was appointed the assistant secretary of the Samity. This gave me a splendid opportunity to come in contact with businessmen and industrialists of Calcutta. Here I would like to mention that I knew nothing before about this organization, not to speak of seeking a job there. I was then a post-graduate student. On July 30, 1930, I received a post card from Acharya Rây in which he asked me to see him immediately as he had secured for me a job suitable to my attainments. Such was his kindness. When I think of innumerable unasked favours like this, which I received from him, I become overwhelmed with gratitude.

The interest of Acharya Rây in the economic problems of the country ever remained unabated. In 1933, while the Reserve Bank of India Bill was on the legislative anvil, a great controversy was aroused regarding the

fixation of the value of the rupee in its relation to pound sterling. The official proposal was to maintain the rate at 1s. 6d., while the Federation of Indian Chambers of Commerce and Industry of which Nalini Ranjan Sarkar was the President suggested that it should be at 1s. 4d. Acharya Rây felt that in the interest of Bengal as also of India the rate should not be changed, specially in view of the fact that nobody was sure whether the rupee was overvalued and secondly that such a move would retard the industrial progress of the country. The entry of Acharya Rây in this controversy created a stir all over the country. The now defunct *Advance* wrote on December 12, 1933 : "The chances of a lower rupee were practically wrecked on the rock of Bengal's opposition engineered by an unostentatious chemist of the province. So Bengal counts in the public life of India, a fact which the Western Presidency has been rather slow to recognize." When the controversy was at its zenith and Bengal was dubbed as parochial on account of her opposition, Acharya Rây issued a well documented statement which demonstrated to the satisfaction of the impartial critics why Bengal resisted the policy of lowering the value of rupee. "I was naturally prompted", said Acharya Rây in his statement, "to keep in my mind the interest of Bengal, but I think I would not be far wrong if I say that what I stated in my statement would be equally applicable to all the provinces of India." He asserted that before taking a decision in favour of the devaluation of the rupee it was necessary to have more definite proof of the overvaluation than had so far been given, and of the fact that the devalued rupee would enable us to attain our objective in view of the present state of market for commodities. An uncritical analysis of price levels, a misinterpretation of the experience of other countries, an exaggerated view of the advantages of the depreciated exchange of prices and a complete neglect of its effects on the present movement for the industrialization of Bengal were, in his opinion, at the bottom of the move for a lower rupee.

In this controversy I had the privilege to work as his secretary. I still remember the evening when I told him that in view of the powerful forces acting in support of devaluation it might not be possible to achieve our object. Great as he was, he replied that every controversy implied that either of the parties would win the victory and the vanquished must always take it in a sporting spirit. In the long run the lead given by him thwarted the move of the protagonists of devaluation. Again when Netaji Bose became the President of the Congress he was approached by many for carrying on agitation in favour of devaluation. Netaji wanted to consult Acharya Rây first before approving such a move. I was asked by Acharya to keep myself ready to argue the matter with Netaji, but the occasion did not arise.

In January, 1937, Dr. Syamaprasad Mookerjee, the then Vice-Chancellor of the University of Calcutta, presented before the Senate his scheme for the establishment of the University Appointments Board and

Acharya Rây was present at the meeting to give his blessings to the scheme, the purpose of which was to divert the attention of the university-trained young men to business. This scheme was a bold experiment never tried in India. In 1939, the Board, of which I happened to be the then secretary, organized a series of lectures popularly known as "Career Lectures". These lectures were later on published by the University of Calcutta and Dr. Syamaprasad Mookerjee in his preface said: "It is not suggested for a moment that by merely reading these lectures men will immediately turn into business magnates. We are anxious that our youths should be more serious-minded and better disposed to hard work in practical lines. We can now think of nothing but service and some learned professions as our goal. We hope that by a wide circulation of these lectures, the attention of all concerned, and specially of the student-community, will be attracted and these will help them in exploring the possibilities of finding useful careers in various branches of trade and commerce. While initiating in this humble way this plan for the future good of the youths of the province and for focussing public attention on a matter of vital importance, the University confidently expects that its efforts will be suitably supplemented by other bodies and organizations including the Government, so that by means of whole-hearted co-operation we may succeed in ushering in a new era of progress and prosperity for the children of this great province."

Before a packed hall in the Asutosh Building Acharya Rây opened the series with his talk "Bengali in Commerce and Industries", which was broadcast by the All India Radio. He then analysed the causes leading to the failure of Bengalis in business and at the same time uttered words of encouragement. In his concluding remarks he said: "I have ventured to say many things about the shortcomings of the Bengali with the fond hope that my timely note of warning will not be a cry in the wilderness. The Bengali has got many noble qualities and I am proud of my nationality and I glory in being a Bengali. In one essential aspect, however, he has proved to be a dismal failure, namely in the art of earning livelihood. I have not, therefore, spared any pains to dissect the Bengali character and lay bare its weak points. Like a surgeon I have plunged the lancet deep into the flesh so as to remove the morbid tissue and apply healing balm. The Bengali people is after all my own people and its faults are my own faults; and its many redeeming qualities are equally my own. I have thus a moral right to give such advice to it as I think fit to give."

I have tried to give a short glimpse of my contact with Acharya Rây extending over a period of 20 years. His interest in my work, his never-failing encouragement, his words of hope when despondency overtook me and his numerous kindness too personal to record, sustained me during the period of my struggle in life. When tossed between hopes and despair, when the whole world appeared to be full of darkness, Acharya appeared before me like a shining star. To that great soul I bow my head with reverence and gratitude.

A REMINISCENCE

By RANJIT SINGH SATYASRAY

It is a story of about thirty five years ago when I was a student and had gone to Pirojpur in the district of Bakhergunge (Barisal), now in Eastern Pakistan, for my education. A political conference was due to be held and Acharya Prafulla Chandra Rây was to preside over it. I was placed in charge of the three invited guests—Acharya Rây and two ladies, Mohini Devi and Santosh Kumari Gupta. The ladies were accommodated at the house of Nibaran Chandra Ghosh whose wife, herself an active Congress worker, played the hostess. It so happened that I had to look after both the host and the guests. One of them Mohini Devi was a close friend of my mother. I had to attend on the great Acharya, whenever called upon to do so, in the boat of Satyendra Nath Ray Chaudhury, Chairman of the Reception Committee. It was my main concern to look after his personal comforts. A great scholar in all branches of science and arts as he was, he was simple as a child whom power could not corrupt. My work was not at all difficult. It consisted firstly in determining the safe distance wherefrom to receive his blows inflicted at random out of his overflow of love and affection for the young.

My duty was very congenial. I had to carry dainty dishes, excellent mangoes, oranges, pineapples, bananas, litchis and what not from the Ray Bahadur's bungalow to the boat for the Master. The sweets too were provided for.

Another duty was to bathe and feed him. Sometime he was lecturing about untouchability. Once after his meal he was resting while the untouchable boatmen were taking their food. Suddenly he sprang up and addressed me: "Can you tell me what is this untouchability?" So saying he rushed to the boatmen and took a morsel from their plate. I was at once convinced of his humanism. I quoted from Swami Vivekananda and Rabindranath's writings:

'Religion has entered into the cooking pot', and 'Oh my unfortunate country.'

I had to take him out for a walk in the morning and in the evening over the embankment of the Baleswar. It was then a bigger river. He used to speak with the eloquence and enthusiasm of a boy. Only

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occasionally I found time to put in a few words. A master-mind and judge of men and things, he opened out his heart to me. The talks ranged over many topics: future of Pirojpur, caste system, attainment of Swaraj, education, and so on.

Pirojpur is about ten miles as the crow flies from the Acharyadev's native village near Bagerhat in the Khulna district, where a college commemorates his name. The river Baleswar, known in the higher reaches as Madhumati and lower down as Ariyal Khan, separates the two subdivisions, Pirojpur and Bagerhat of the two districts, Khulna and Bakhergunge. I told him about the past history and geography of Pirojpur; how my grandmother used to describe in her confabulations the mighty Baleswar, five miles or so wide, with strong currents and high waves, and how on its western bank lay Bongaon, the seat of the local zemindar, and on the eastern bank, Rayerkathi, the native village of Satyen Babu, Chairman of the reception committee, also a local zemindar. The river Damodar, uniting the Kacha alias Kaliganga with the Baleswar, was much wider and deeper even when my mother was young, studying in a girl's school. The school, she would tell us with much pride, was visited by pandit Iswar Chandra Vidyasagar of illustrious memory and Ram Sundar Basak, an officer of the Education Department. The steamer, which now stops at Hularhat on the way to Khulna and Barisal, used to come right up to Pirojpur and cross over to Baleswar-Madhumati or Kacha-Kaliganga. The Damodar had by that time quite dried up. These rivers were haunted by dacoits, and boats used to ply only in large groups or *bathans*. The subdivisional headquarters was situated at Kaukhali, a steamer station about seven or eight miles east of Pirojpur. My grandfather once fell a victim to those river-dacoits and was robbed of his Puja purchases. In order to subdue these bandits the headquarters was subsequently shifted to Pirojpur. When I was a boy, dead bodies of murdered persons were often brought to the police station. Besides, there were crocodiles in water and Royal Bengal tigers on land. The courageous villagers and boatmen hunted and trapped them and received liberal rewards from the police. I told my honoured guest how once a man was attacked near a stream; courageously he caught hold of the tiger's front paws, and pushing him into the stream drowned him to death. He listened to these anecdotes with rapt attention.

"The future of Pirojpur is not very bright," he said, "what happened to the Damodar would happen to the Baleswar perhaps in another fifty years." He referred to a particular spot off Bagerhat, which he surmised might become dried up. Then the town would become a hot bed of malaria and other diseases because of stagnation. The unhygienic atmosphere common to Khulna and Jessore would extend to Pirojpur. Who could save the situation except the Government? But where was the sign that they would?



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He raised the question of caste system and untouchability. "Do you know their chemical and physical properties?"—he jokingly asked me. He told me that they were "the roots of so many evils." With reference to untouchability, he insinuated: "it is said to have only conductivity through touch. It entered our religion and society during the period of our decadence. Absolutely imaginary in nature, it is the cause of our downfall and slavery. Raja Rammohun, Swami Vivekananda, Swami Dayananda, Mahatma Gandhi—all tried to eradicate it. Yet it holds on. But it is sure to go. The anti-untouchability movement, helped by science and the industrial revolution, is gaining in momentum and is sure to acquire more strength ere long."

He dwelt on the politics of Bengal. The Calcutta Corporation had then come into its own. Deshabandhu Das had captured it on behalf of the Congress. He was elected its first Mayor and Netaji Subhas, its first Chief Executive Officer. Deshabandhu suddenly died and Netaji was deported to Mandalay before his death. It was an extreme calamity for our country. The Acharya said: "Subhas had made a mistake by accepting the post of the Chief Executive Officer. He ought to have remained in his office as the Secretary of the Bengal Provincial Congress and from there he could have directed and managed the affairs of the Corporation. His acceptance of the post of C.E.O. proved that he considered it more valuable or important, even superior to the secretaryship of the Congress. This should not have been, if you wanted to get Swaraj". The slogan 'capture the legislature' had not maintained its revolutionary zeal. The result was that the Non-Cooperation Movement had lost its momentum. New comrades were using the Congress as a showpiece for ideas and a platform for propagating political activities through legislature. With practically no power, the Corporation merely promoted power politics to some extent, thanks to Sir Surendra Nath Banerjee. There was a serious set-back in the outcome, since this divided the Congress; Mahatma Gandhi with his followers became No-Changers. Deshabandhu Das and Pandit Motilal Nehru founded the Swarajya Party and threatened to break away. Mahatma Gandhi although having a majority, apparently admitted defeat and made a retreat. I told Acharya Rây the truth. I said: "Deshabandhu captured the Corporation aided by the leaders of the former revolutionary parties who had returned from the Andamans after long imprisonment or detention. Thanks to Sir Asutosh, the non-violent Non-Cooperation and Civil Disobedience Movements were coupled with a programme of education for the masses and the intelligentsia alike and the revolutionaries were held in high esteem. Deshabandhu knew it well. But economically the revolutionaries were ruined men. Deshabandhu loved them from the core of his heart and sincerely helped them in thousand and one ways. He, in fact, welcomed their popularity. But having given up his lucrative law practice, Deshabandhu was in need of money. The British Rule had been taking special steps to see that the revolutionaries could get no employment or support, no foothold in the body politic. For the post af



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C.E.O. Deshabandhu initially chose B. N. Sasmal. The ex-revolutionaries demanded whether Sasmal would agree to appoint men from their party. He replied he would certainly prefer them to others provided the candidates had the minimum qualifications. They next approached Subhas Babu, who wholeheartedly agreed to render service to the cause of the country. Thereupon, Deshabandhu appointed him in preference to Sasmal. In the meantime a large section of the young men of Bengal, disappointed at not having Swaraj in one year as programmed, again formed some secret societies. This found an open expression in Gopinath Saha's attempt on the life of a high official and killing, through mistake, an innocent Englishman.

"I hesitated to join a revolutionary party. There was at least some substantial difference between one political party and another. India was bound to remain non-violent if not out of deference for creed, at least out of policy. You know, Sir,"—I explained to him what happened at Balasore. He replied in the affirmative. "So" I said, "I support and abide by the open movement of the Mahatma and his wing of the Congress. As for the party politics of Bengal, I have been supporting B. N. Sasmal, for his activities appear to me more conducive to mass-awakening. From the standpoint of Subhas Babu, he had no option but to take leave from the prevailing leadership of Bengal."

"But he could have selected some one of his nominees, himself remaining the secretary of the B.P.C.C.", said he.

I said: "From Subhas Babu's standpoint, it could not be. If you keep in mind the mission of the revolutionaries with whom he was one at heart, the task of clearing the Augean stable and facing the official interference had to be undertaken by himself. Who else could have had the stamina, firmness, tact and capacity for it?

"The result has been, he is in detention and no one knows when he would be back amongst us.

"It is our greatest misfortune that Subhas Babu and B. N. Sasmal quarrelled. The fate not only of Bengal but of Indian politics would have been different but for such quarrels. Though of the two I supported Shri Sasmal for his sobriety I do not know how he could ever have effective *modus vivendi* with the revolutionaries. He could of course get highly qualified persons amongst them for employment. It might be asked what was the British administration doing? They would appear seldom to employ the right person, preferring mostly their own henchmen. A non-matric gets a job side-tracking a graduate. A *rapprochement* between Shri Sasmal and Subhas Babu would have led certainly to good results. The post of C.E.O., as you know, has gone to a man who has little to do with the Congress and revolution, and he is influenced directly by the policy dictated

from the Writers' Buildings. The British administration in India is not a house of cards as Sir John Seele wants us to believe. Under no circumstances should sincere national workers quarrel and differ. As you know the British Government has infinite resources and strategies to divide and rule."

Our dialogue continued as the following:

Writer: "On the other side of the river is the village, Meghpal, a muslim village and the seat of a stalwart Muslim Leaguer who was defeated by our present chief minister, Moulavi A. K. Fazlul Haque Sahib. In 1921, I was there organizing it. The panchayat, the daffadars, the chaukidars, all resigned. The circle officer was sent there to enquire. The secretary of the Congress Committee at Pirojpur was apprised of it. I saw the circle officer at Hularhat in his precious boat, going there. We came to know later that he had instructions to report that no evidence of breaches of law and order could be had as the entire locality was hostile though peaceful and non-violent. But the British Government took repressive measures. I was very much touched by the suffering of the people. I can tell you from my experience that our masses readily respond to the call of the country and that we who work with them sincerely love them and feel responsible for them.

"What a splendid success Shri Sasmal was as the Chairman of the Midnapur District Board. When he was ousted, it was through the direct action of the Congress men at the top level."

Acharya Ráy: "Knowing all, why do you want me to fall in line with the Congress and to renounce my titles and other connexions with the Government?"

Writer: "Your case is different. With a steady man like you at the helm, it appears we would get a firm foothold."

Acharya Ráy: "Were I to renounce my title and join the Congress there would be jealousy in the ranks. I would be left alone like Shri Sasmal. I am a scientist, a teacher. I forbear to tell you a blatant lie, or to bluff you. I do not believe in Swaraj within one year or in the near future. Though I have been the President of the National Council of Education and also of your college, I cannot possibly ask you to give up university education curriculum. National education is ineffective without national Government. In the present state it is unable to get you established in life. I have pinned my faith on solid work; convince me if you have any such work. In the beginning I had derided Mahatma Gandhi's *charkha* and *khaddar*. As soon as he convinced me that something solid could be done for the starving millions, I took up the cause



with earnestness. I have done my best, I am the last person to believe in anything utopian or to bluff any body.

"I have really high opinion of young men like Subhas, Sasmal, Prafulla Ghosh and those who have made sacrifices for their motherland following Tilak, Gandhi, Aurobindo, Deshabandhu and others. Such examples of self-sacrifice are great assets. If you want to establish government of the people, by the people and for the people, you shall have to come down to the level of the ordinary man. Whatever ideal you worship and practise in your private life or in public life, you shall have to identify yourself with the aspirations of the common man. His concern, first and foremost, is earning a square meal. Give up lazy dreams. Instil into the masses the ideas of independence. It is not a labour of love, it is the struggle for which labour is an absolute necessity. You are to shape a national character which is not yet formed. Do not tell them what they cannot grasp or follow. Begin with 'honesty is the best policy.' When it will be crystallized into a habit, it will automatically become 'honesty is the very creed of a noble man.' Give them a positive programme. In the process you will feel that certain obscurities, drawbacks and bad habits are the real causes of our slavery and have to be rectified. Lead them step by step, bit by bit. There is no hope for Swaraj by chance."

Writer: "Do you think our rulers will tolerate it? In 1917-18 there was 'scarcity' when men and women died even in the districts, held to be the granary of Bengal. Our leader, the late Sri Aswini Kumar Dutt, started a relief organization. The dacoits, Hindus or Mussulmans, did not loot his supply boats. They carried his rice bags on their shoulders and heads. We joined his movement. Some funds were collected and sent to him. As 'begging subscription', as it was loosely called, was not sufficient, I asked my mother, 'how can we earn money by our own efforts?' She gave me a hint. 'Buy a few maunds of paddy with the collection you have in hand. I shall dry it for you in the sun, when you will be at school. After the school-time you all come here, work at the *dhenki* for an hour. I shall husk it for you. It will fetch you a profit from the market of, say, rupees five daily.' (It may be recalled that rupees five of those days are equivalent to rupees fifty now). 'Collect one week's profit and send it to Aswini Babu.' We took her advice. A group of us—some ten boys—began to work. After a week our headmaster sent for my maternal uncle, took him to task and asked him to stop it immediately."

Acharya Ray: "Why?"

Writer: "It was because the officials at the Writers' Building refused to describe the condition as a famine and named it 'scarcity'. Our Indian Additional District Magistrate of Faridpur was constrained to submit a



IIA—RANJIT SINGH SATYASRAY

report, disproving the famine. He reported: 'There are leaves on the tree, and water in the river. How can there be a famine? It evoked a biting criticism from you, I remember. After all, the Government interfered and we were not allowed to work for it. Helpless as we were, we had to obey the headmaster by all means. What you say now, sir, our rulers may not admit. They will try to baffle us.'

Acharya Ráy: Do not worry. Times have changed. The Khadi Pratisthan, Charkha Sangha, Abhoy Ashram, and Gandhi Seva Sangha are doing a lot of work. This famine is a regular affair. Look at such firms as Bengal Chemical, Butto Kristo Paul's pharmacy, Mahesh Bhattacharya's enterprise. Sir Rajen Mukherjee, Mohini Babu, Naren Laha and others of their like have done wonders in the industrial field. Remember my lectures on 'Bengali Brain and its Misuse' and Rabindranath's quotation: 'The Bengali intellect can run very fast with the cleverness of split hairs arguments like a race-horse, but fails to move with the carriage when needed' (English translation). These will stimulate you to action. No venture, no gain. Look at Bombay. They are far ahead of you in industry and money matters."

A vast scholar and well-read authority, he began to quote freely from the history of the French Revolution, American Independence Movement, Mazzini, Garibaldi and Cavour, and from the records of the Bolshevic revolution. From spark to flame he uttered a prophecy. "Well begun is half done. Begin humbly and proceed tenaciously in arithmetical progression. It will gain in momentum and of itself go on in geometrical progression."

Thus ended one of the most unforgettable episodes of my life.

ACHARYA PRAFULLA CHANDRA RÂY

By RAJANI KANTA BASU*

My acquaintance with Acharya Prafulla Chandra began in 1906 when I took admission into the Presidency College, Calcutta, as a fourth year student of the college. It was at first an acquaintance, more like what is known in scientific jargon as 'action at a distance' than anything else. Later however, this developed into personal contacts and greater familiarity, when I became one of the few M.A. students who made the pursuit of chemistry their vocation in life.

Dr. P. C. Rây was already known to the student community, not only as an eminent chemist who had made notable discoveries and who had founded the Bengal Chemical and Pharmaceutical Works, but also as a friend of poor students whom he silently helped to prosecute their studies.

It was then a glorious period in the field of higher education in Bengal, since many of the Calcutta colleges could boast of one or more distinguished professors in their staff and even some of the *mofussil* colleges, too, had names to be proud of : to name a few, the Bangabasi College had Girish Chandra Bose and Lalit Mohan Banerji ; the City College had Heramba Chandra Maitra ; the Metropolitan (now Vidyasagar College) had N. N. Ghosh and Sarada Ranjan Ray ; the Ripon (now Surendra Nath College) had Surendranath Banerjee and Ramendra Sundar Trivedi. In the Presidency College, though Dr. P. K. Roy was no longer there, yet its glorious traditions were maintained by Professor Percival, Dr. J. C. Bose and Dr. P. C. Rây.

Dr. P. C. Rây was so very simple in his habits and dress that on the first day I attended his class I was puzzled as to who was the reputed professor and who was his lecture assistant (later Prof. A. C. Ganguli). But after the roll-call was over, all doubts were set at rest : the flashing eyes out of a feeble frame, the clear and lifelike exposition soon drew out attention to him as a magnet attracts particles of iron.

Well the beacon, the 'kindly light' showed us the path. But the present writer cannot boast of having trodden the path blazed by him, being not among those who collaborated with him in the field of pure or applied

* This article could not be placed in its proper alphabetical order owing to oversight [Ed.].



chemistry. Because, after passing the M.A. Examination (1908) and serving a few months at the Presidency College as laboratory assistant, I had to seek employment elsewhere. He sent me to the Daulatpur Hindu Academy, Khulna (now in East Pakistan), where I stayed only a few months, before finally joining the Government service.

During the period of my service at the Ravenshaw College, Cuttack, then within the jurisdiction of Bengal and the Calcutta University, I met Dr. P. C. Rây whenever I could find an opportunity during the college vacations or at the time of university examinations. These visits were like occasional pilgrimages of a householder, usually busy with his everyday problems. In his laboratory at the Presidency College, in his rooms at the Bengal Chemical or later at the University College of Science, he was the same genial soul radiating love and affection to his former pupils.

I once had the rare good fortune of coming into closer contact with him by being his host for a short period while he was touring North Bengal in connexion with khadi and work of relief in 1925. Dressed in homespun khadi and barefooted, he was preaching the economy of khadi among the village cultivators, exhorting them to produce yarn in their off-periods when agricultural operations did not keep them engaged.

The last glimpse I had of him was in the winter of 1927-28, when he had gone to Patna as the President of the Bengal Literary Conference.

A GREAT PERSONALITY

By H. K. Sen

The letter which Sir P. C. Rây wrote to me in 1908 from Calcutta was characteristic of him and as far as I remember at this long lapse of time, it was full of keen sympathy for the young and the struggling. When I met him after about a month of the receipt of his letter in Calcutta, he impressed me so very much that thereafter it was the ideal of my life to shape my own after the great Personality. *

*Taken from a letter dated 18 January, 1944, written by the author to a friend.

আচার্য প্রফুল্লচন্দ্র স্মরণে দুই চারিটি কথা

শ্রীনিত্যানন্দ বসু, চৌধুরী

আচার্য প্রফুল্লচন্দ্রের সন্ধ্যাকালে গড়ের মাঠে যে আড্ডা ছিল—আড্ডা নহে, নৈমিষারণ্য—বহুকাল তাহার নগণ্য সভ্য থাকিবার আমার সৌভাগ্য হইয়াছিল। সরল ও নিম্নশ্রেণীর লোকের দরদী এমন জোক দেখি নাই। সুরেন্দ্রনাথের কংগ্রেসের সেক্রেটারী এবং ক্যাশিয়ার শ্রম্বেয় সত্যানন্দ বসু, ঢাকা মালকানগরের জমিদার প্রফুল্লবাবু সকলেই দিগ্‌গজ—তাহারাও ঐ নৈমিষারণ্যের সভ্য ছিলেন। তাহাদের কলিকাতার বাড়ীতে থাকিবার আমার সৌভাগ্য হইয়াছিল। স্যর রাসবিহারী ঘোষ মহাশয়ের ভনীপতি পরম পূজনীয় সারদাপ্রসাদ বসু চৌধুরী আমার জ্যেষ্ঠত্ব ভাই হতেন। সে সম্বন্ধটা আচার্যদেবের কাছে আমার ওজন বাড়িয়া দিয়াছিল।

গড়ের মাঠে প্রিন্সেপ ঘাটের যে ইমারত আছে তাহার সম্মুখে উত্তর ও দক্ষিণ দিকে দুইটি পাথরের সিংহের মূর্তি আছে। একদিন সন্ধ্যাকালে দক্ষিণ দিকের সিংহ-মূর্তির উপর কতকগুলি বাঙালী বালকবালিকা এবং উত্তর দিকের সিংহ-মূর্তির উপর কতকগুলি ইংরাজ বালকবালিকা খেলা করিতেছিল। কি খেলায় হইল ইংরাজ বালকবালিকারা তাহাদের উত্তর দিকস্থ সিংহের আসন ত্যাগ করিয়া দক্ষিণ দিকস্থ সিংহ-মূর্তির উপর ক্রীড়ারত বাঙালী বালকবালিকাদের আক্রমণ করিল। বাঙালী বালকবালিকারা তৎক্ষণাৎ কোন বাধা না দিয়া তাহাদের দক্ষিণ দিকস্থ আড্ডা ত্যাগ করিয়া উত্তর দিকস্থ সিংহ-মূর্তির কাছে আড্ডা লইল। কিছুক্ষণ পরে দক্ষিণ দিকস্থ তাহাদের নূতন আড্ডা ত্যাগ করিয়া ইংরাজ বালকবালিকারা উত্তর দিকস্থ বাঙালী বালকবালিকাদের দ্বিতীয়বার আক্রমণ করিল। এইবার বাঙালী বালকবালিকারা আর তাহাদের স্থান ছাড়িয়া না দিয়া যুদ্ধক্ষেত্রে যোদ্ধার মত সোজা হইয়া দাঁড়াইয়া ইংরাজ বালকবালিকাদের হটাইয়া দিল। আমরা সকলে এই যুদ্ধ দেখিতেছিলাম। বাঙালী বালকবালিকারা শেষে কৃতকার্য হইল দেখিয়া আচার্যদেব ক্রীড়ামোদী বালকের মত হাত তুলে নাচিতে লাগিলেন। তিনি আমাদের লক্ষ্য করে বলিতে লাগিলেন “অমুক বাবু, আমরা কি বালকবালিকাদের মত সাহেবদের সঙ্গে যুদ্ধ করিতে পারি?” হিন্দুর জাতীয় বৈশিষ্ট্য—উদারতা। প্রথমে আক্রান্ত হইয়া তাহারা নিজ-জাতীয় উদারতা দেখাইল—স্থান ত্যাগ করিল। পরে দ্বিতীয় বার আক্রান্ত হইয়া আর কাপুরুষতা দেখাইল না। পাকা যুদ্ধ করে আত্মমর্যাদা বজায় রাখিল। আচার্যদেব পুনঃ-পুনঃ বলিতে লাগিলেন, “অমুক বাবু, আমরা কি ইংরেজদের সঙ্গে লড়াই কতে পারতাম?”

একদিন তিনি আমাকে জিজ্ঞাসা করিলেন, “লেখাপড়া শিখেছেন, আর্থিক অবস্থা মন্দ নহে। ব্যবসা না করে চাকরি কতে এলেন কেন?” “সে অনেক কথা”—আমি বলিলাম, “বাংলার প্রাচীন জমিদার বংশে আমার জন্ম, অতিথিসেবা-ঠাকুরসেবার ঘর। অজ পাড়া-গাঁয়ে বাড়ী, বড় ব্যবসা কি তাহা জানি না। গ্রামে ধান চালের ব্যবসা দেখি। এই ব্যবসা কতকগুলি নিরক্ষর মুসলমান একখানা গরুর গাড়ী আর মাত্র ১০০ টাকা মূলধন লইয়া দখল করিয়া আছে। নিকটস্থ রেলওয়ে স্টেশন আড়তে ধানের যে দর সেই দরে গ্রামে ধান খরিদ করে আর ১০ আনা গরুর গাড়ী ভাড়া দিয়ে ঐ আড়তে বিক্রয় করে। তাহারা টেনে ওজন বেশী করে না মাপিলে ঐ ব্যবসা কি করে চালাইবে? ব্যবসা মানে ইহাদের সঙ্গে আড়াআড়ি করা। টেনে মাপে ওজনে ফাঁকি দিয়া কাজ করা। আপনি কি একজন ভদ্রলোককে সেই কাজ করিতে উপদেশ দেন?” যেমন এই কথা বলা, তিনি শুনাইয়াছিলেন, রেগে উঠে বসলেন এবং বললেন “তবে মাড়ওয়ারী জাতির গোলামী করুন গে।”



তাহার নৈমিষারণ্যে কোন কথার আলোচনা বাকি থাকিত না। ছোট-বড় গৃহস্থালি কথা হতে আরম্ভ করে ব্রহ্মদর্শন পর্যন্ত।

প্রথম মহাশয় চলিতেছে। ভাদুর্ন, যদুন্দের কেন্দ্রস্থল। একদিন তিনি বলেন : “মহাশয়, এম. এস.সি. পাশ করে আমাদের কাছে ছেলেরা রিসার্চ করছেন, ছেলেরা ভাদুর্ন কোথায় তাহা জানে না, এ কি প্রকার লেখাপড়া মহাশয়?” আমি বলিলাম : “দোষ ত আপনাদের। ইউনিভার্সিটিতে আজকাল ভূগোল ইচ্ছাধীন শাস্ত্র হইয়াছে।” তিনি বলিলেন : “ক্ষমতা থাকিলে সিনেট হাউসটি ভাঙিয়া দিয়া কাজের লোক সৃষ্টি করিতাম। ১০/১২ বৎসরের একটা মাড়ওয়ারী বালক এক জোড়া কাপড় খরিদদারকে কি প্রকারে গছাতে (বিক্রয় করিতে) পারে তাহার জন্য যে বদ্বিধ এবং সতর্কতা খরচ করে সে বদ্বিধ খরচ করিবার যোগ্যতা একটা রিসার্চ স্কলারের নাই আমি দেখি।”

একদিন আমার কাছে শুনিলেন যে আমাদের গ্রামের দুইটি কায়স্থ বালক স্কুলের বেতন দিতে পারিল না, ফলে তাহাদের নাম কাটা গেল। পড়াশুনা বন্ধ হইল। তিনি দুঃখ করিয়া বলিলেন “কলিকাতা হইতে মাত্র ৫১ মাইল দূরে স্কুলের বেতনের অভাবে কায়স্থ বালকদের পড়াশুনা বন্ধ হইল আমার জীবনে এই প্রথম শুনিলাম। আমাদের পূর্ববঙ্গে একদল লোক স্কুল কলেজ স্থাপন করেন, আর সকলেই হাঁড়ির ভাত দিয়া গরীব ছেলেরদের রাখিয়া তাহাদের লেখাপড়ার সাহায্য করে। মহাশয়, অনেক দেশ দেখিয়াছি, কিন্তু পয়সার অপব্যবহার বাঙালী দেশে যেমন হয়, এমন কোথাও হয় না। আর ‘পোড়ে মার খাবার’ জাত আমাদের মত কোথাও নাই। এই দেখুন না, আমরা কটা লোক এই ফাঁকা জায়গায় বসিয়া আছি? সহরে লোকসংখ্যা কত? ধনী যুবকদের গাড়ী এখন চিৎপদর রোডে ঘুরে বেড়াচ্ছে।”

তিনি একদিন বলিছিলেন “আর্থভট্টের মৃত্যুর পর দেশ হতে স্বাধীন চিন্তা উঠে গিয়েছিল; পরে তারকনাথ পালিত ও রাসবিহারী ঘোষের সাহায্যে আবার স্বাধীন চিন্তা আরম্ভ হলো। এই বেংগল কেমিক্যাল যখন আরম্ভ করি কুচির গাছের ছাল ছেঁচে ছেঁচে আমার হাতে ফোস্কা পড়ে গিয়েছিল।”

বন্যাগ্রাণ সমিতি—খুলনা দুর্ভিক্ষে চাঁদা সংগ্রহ করে আমার এক ভাণ্ডে ইউনিভার্সিটি কলেজে তাঁর বাসস্থানে গিয়াছিল। কি আনন্দ, যেন নিজ জন ও বহু পরিচিত। বলেন “জল খা।” ভাল দই চিড়ে-ভিজে আর শুকনা খেজুরে গুড় খাইতে দিলেন। তাহার সরলতাপূর্ণ কথাবার্তা, আত্মীয়তা লিখিয়া শেষ করা যায়না, তাহা স্বর্গীয়।

বর্ধমান জেলায় বাড়ী—ম্যালেরিয়াগ্রস্ত। স্বয়ং ভূগি ম্যালেরিয়ায়, নাম বর্ধমান ফিভার। কলিকাতায় পড়িতে এলাম, ম্যালেরিয়া গেল; ডিস্‌পেন্সিয়া ধরিল। মরণাপন্ন, কেবল দুধ আর ভাত খাইতাম। আচার্যদেবের মত দরদী লোক দেখি নাই। আমরা সামান্য লোক, তিনি কিন্তু আমাদের উপদেশ দিতেন। আমাকে একদিন বলেন—“দুধভাত বার মাস খাইবেন না। মেসে যা রান্না হবে তাই অল্প করে খাইবেন। প্রকৃতি ভারী মিতব্যয়ী। আপনি যা খান না, সেই বস্তু হজম করিতে যে রসের দরকার প্রকৃতি প্রত্যহ সেই রসের সৃষ্টি করেন না। ফলে, আপনি হঠাৎ নূতন একটা দ্রব্য খেলেন, প্রকৃতি আবশ্যকীয় রস সৃষ্টি করেন নাই—আপনার পেটের অসুখ হইল। আমার এক বন্ধু কটকে চেঞ্জ (হাওয়া পরিবর্তনে) গিয়াছেন। কটকে চিড়া আর দই প্রসিদ্ধ। বন্ধু একদিন ফলার করিয়াছেন আর পেটের অসুখে ভূগিতেছেন। আমাকে লিখেছেন—চেঞ্জ (হাওয়া পরিবর্তনে) এসে কত নিয়মে আছি; একদিন মাত্র ফলার করিয়াছি—আর এই রোগ।” আমি তাহাকে লিখিলাম প্রত্যহ বা মধ্যে মধ্যে কিছু ফলার করিলে রোগ হইত না। প্রকৃতি রস সৃষ্টি করেন নাই। তিনি

জানেন না যে আপনি ফলার করবেন।” বলা বাহুল্য, তাঁর উপদেশ মত প্রতাহ দৃষ্টিভাষা
খাওয়া ছেড়ে দিয়ে যাহা রান্না হয়, তাহাই খাই এবং ভাল আছি।

একদিন কেল্লার নিকট মিলিটারী জেটিতে বসে আমরা গল্প করছি। সম্মুখে
“কুইন মেরি” জাহাজ দাঁড়াইয়া আছে। জাহাজের মাঝিরা খেতে বসেছে। বড় একটা
ডেক্‌চিতে রান্না অন্ন। মাঝারি একটা ডেক্‌চিতে ডাল, ছোট ছোট ডেক্‌চিতে তরকারী।
হাতা দুইটা আছে। একটা খুব বড় হাত-বিশিষ্ট হাতা, আর একটা ছোট। খাদ্য পরি-
বেশন নাই। যাহার যাহা দরকার ঐ হাতার দ্বারা সেই দ্রব্য লইয়া আসিতেছে এবং খাই-
তেছে। নিকটস্থ খাদ্য ছোট হাতার দ্বারা এবং দূরস্থ খাদ্য বড় হাতা দ্বারা আনা হই-
তেছে। আচার্যদেব তাহা দেখিয়া বলিলেন, “দেখুন, দেখুন কেমন প্রাচুর্য।” আমি বুদ্ধি-
লাম, তিনি হিন্দুদের জাতিভেদ এবং উচ্ছৃঙ্খল-অন্ন দোষ ইঙ্গিত করিতেছেন। আমি
বললাম—“তা পাড়ারগায়ে মুসলমানদের ভিতরই মারামারি কাটাকাটি বেশী।”

একদিন প্রিন্সেসপ ঘাটে চাঁদনীতে আমরা বসে আছি। সম্মুখে একটা গরু মস্-
মস্ করে ঘাস খাচ্ছে। আচার্যদেব বলেন “মশাই, আমরা যে ‘বেসিলাই’ কথা বলি, কত
সাবধানে থাকি রোগের ভয়ে, গরুটোর কোন ক্ষতি হচ্ছেনা কেন?” আমি বলিলাম—“ইহার
উত্তর আমি দিব না, আপনি দিবেন।” তিনি বলিলেন—“আমাদের শিক্ষা।”

আচার্য প্রফুল্লচন্দ্র

শ্রীচারুচন্দ্র ভট্টাচার্য *

(বসুধারা, শ্রাবণ-১৩৬৬)

আচার্য প্রফুল্লচন্দ্র রায়ের বয়স যখন সত্তর বছর পূর্ণ হল তখন তাঁর দেশবাসী এক বিরাট সভায় তাঁকে অভিনন্দিত করে। এই উপলক্ষে তাঁকে একখানি স্মারক-গ্রন্থ উপহার দেওয়া হয়। বহু মনীষী তাঁদের লেখা দেন।

মহাত্মা গান্ধী তখন যারবেদা জেলে। সেখান থেকে লেখেন।——

Acharya Ray I had the privilege of knowing for the first time when Gokhale was his next-door neighbour in 1901 and I was undergoing tutelage under the latter. It was difficult to believe that the man in simple Indian dress and wearing simple manners could possibly be the great scientist and Professor he even then was. And it took my breath away when I heard that out of his princely salary he kept only a few rupees for himself and the rest he devoted to public uses and particularly for helping poor students.

Y. C. P.
24-5-32

M. K. Gandhi

১৯০১ সালে আচার্যদেবকে প্রথম দেখলুম। প্রেসিডেন্সী কলেজে তৃতীয় বার্ষিক শ্রেণীতে ভর্তি হয়েছি। রুটিনে দেখলুম প্রফুল্লচন্দ্র রায় আমাদের ক্লাস নেবেন। প্রথম দিনের ক্লাস, ছুটেতে ছুটেতে গিয়ে গ্যালারিতে এসে বসলুম। দ্বিতীয় ঘণ্টা পড়ল; বেয়ারা এসে রেজেন্টারি দিয়ে গেল। দেখি, বেয়ারার গায়ে চৌখুপি ছিটের সূতির একটা কোট। এবার প্রবেশ করলেন আচার্যদেব। দেখি, তাঁর গায়ে অবিকল সেই ধরনের এক কোট। এটা কেমন করে হল ঠিক বুঝলাম না।

বিকলে প্রাক্টিক্যাল ক্লাসে ডিম্‌সট্রেটর গুপীবাবুকে কথটা জিজ্ঞাসা করলুম। তিনি বললেন,—একটা থান কিনে চারটা কোট করান। দুটো বেয়ারাটাকে দিয়েছেন, দুটো নিজে পরেন। ——

ওই সময়ের আর একটা ঘটনার কথা শুনোছিলুম।

বোম্বাই-এর এক বিশিষ্ট ধনী প্রথম কলকাতায় আসেন। কলকাতায় দ্রষ্টব্য বহু স্থান দেখবার পর তাঁর ইচ্ছা হল একবার সুবিখ্যাত বিজ্ঞানী প্রফুল্লচন্দ্র রায়ের দর্শন লাভ করেন। তিনি খবর নিয়ে জানলেন যে, ১১ নম্বর আপার সাকুলার রোডে যে “বেঙ্গল কেমিক্যাল ওয়ার্কস” আছে, তারই দোতলার ঘরে অধ্যাপক থাকেন। তিনি চলে এলেন। এসে বেঙ্গল কেমিক্যালের দরওয়ানের হাতে তাঁর নামের কার্ড দিলেন। দরওয়ান বলল,—কার্ড দরকার হবে না, আপনি ওই সিঁড়ি দিয়ে সোজা দোতলার ঘরে যান, তিনি সেই ঘরেই আছেন।

*গভীর দুঃখের সঙ্গে জানাতে হচ্ছে যে অধ্যাপক চারুচন্দ্র ভট্টাচার্য তাঁর এ-লেখা পাঠাবার কিছুকাল পরেই পরলোকে প্রয়াণ করেছেন।

ভদ্রলোক গেলেন, কিন্তু তখনই ফিরে এসে দরওয়ানকে বললেন,—ওঘরে এক-জন দস্তরী বই জুড়ে দেখলুম, আর তো কেউ নেই।

আচার্যদেবের পরণে ছিল একখানা লুঙ্গি, গায়ে গেঞ্জি—একখানা বই-এর পাতা ছিঁড়ে গেছিল, তিনি তখন তাই জুড়ছিলেন।

এই স্মারক-গ্রন্থে আচার্য জগদীশচন্দ্র বসু লিখেছেন,—

“The association of plain living and high thinking is always very rare; in addition to these there is in Sir P. C. Rây the element of vigorous action which knows no rest. The combination of such qualities in a single individual is indeed rare in any country, and there can be no higher example for the young generation to emulate than the life of this great teacher”.

জ্যৈষ্ঠ মাস, সকাল থেকে গুমট করে রয়েছে। সতীশ মিত্র এল; এসে বলল—আমি আচার্য প্রফুল্ল রায়কে কোনোদিন কাছে থেকে দেখিনি, তাঁর কাছে নিয়ে চলুন।

বেরলুম দু’জনে। তখন তিনি থাকেন সায়েন্স কলেজের দোতলার দক্ষিণ দিকের এক ঘরে। তিনি ঘরেই ছিলেন। অনেকক্ষণ কথাবার্তা হল। ঘর থেকে বেরলুম।

বাইরে এসে সতীশ বলল,—ওর ঘরে পাখা নেই দেখলুম। আমি আজ দুপুরে ওর ঘরে একখানা পাখা টাঙিয়ে দেবার ব্যবস্থা করব।

—দাঁড়াও, ওর অনুমতিটা নিই।

আবার দু’জনে ঘরে ঢুকলুম। সতীশের প্রস্তাবটা বললুম। গুম্ করে আমার পিঠের ওপর একটা কিল পড়ল। দরজাটার দিকে আগুল বাড়িয়ে বললেন,—এটা কোন্ দিক?

—কেন, দক্ষিণ দিক।

—তবে?

এই “তবে” কথাটার অর্থ ঠিক বুঝতে না পেরে চুপ করে রইলুম। বললেন,

—প্রচুর হাওয়া আসে ঘরে, পাখার কোনো দরকার নেই।

হতবাক হয়ে যে ঘর বাড়ি ফিরলুম।

আমাদের দেশের বাড়িতে একদিন ছিলেন। ফেব্রুয়ার সময় জলখাবার দেওয়া হয়েছে। একখানা চন্দ্রপুলির একটুখানি ভেঙ্গে নিয়ে মুখে দিয়ে বললেন,—এগুলো সব বেঁধে দাও, নিয়ে যাবো। সকালে ছেলেগুলো আসে, খুব আমোদ করে খাবে।

সকালের তাঁর নিজের আহাৰ্য্য থাকত সাধারণতঃ সিরাপ-মাখা মুড়ি। একদিন দুপুরবেলায় গিয়ে দেখি, কুকারে তাঁর জন্যে রান্না হচ্ছে—ভাত, মসুর-ডাল ও আলু সিদ্ধ।—

এই খাওয়া; আর পরার কথা আগে বলেছি। এই খাওয়া-পরার জন্যে কয়েকটা টাকাই যথেষ্ট। আর—বাকি, মহাস্বামী যা বলেছেন,—

Devoted to public uses and particularly for helping poor students.

(বসুধারা, আশ্বিন-১৩৬৪)

আচার্যদেবের সপ্ততিতম জন্মোৎসব হল ১১ই ডিসেম্বর, ১৯০২ সাল। স্থান—টাউনহল।

জয়ন্তী কমিটির সভাপতি ছিলেন নীলরতন সরকার; সভাপতির আসন গ্রহণ করলেন রবীন্দ্রনাথ ঠাকুর।

রবীন্দ্রনাথ তাঁর ভাষণে বললেন।—

“আমরা দু'জনে সহযাত্রী।

কালের তরীতে আমরা প্রায় একঘাটে এসে পৌঁছেছি। কর্মের রতেও বিধাতা আমাদের কিছু মিল ঘটিয়েছেন।

আমি প্রফুল্লচন্দ্রকে তাঁর সেই আসনে অভিবাদন জানাই, যে আসনে প্রতিষ্ঠিত থেকে তিনি তাঁর ছাত্রের চিত্তকে উন্মোচিত করেছেন, কেবলমাত্র জ্ঞান দেন নি, নিজেকে দিয়েছেন, যে দানের প্রভাবে সে নিজেকেই পেয়েছে।

বস্তুজগতে প্রচ্ছন্ন শক্তিকে উদ্ঘাটিত করেন বৈজ্ঞানিক, আচার্য প্রফুল্ল তার চেয়ে গভীরে প্রবেশ করেছেন। কত যুবকের মনোলোকে ব্যস্ত করেছেন তার গুহাহিত অনভিব্যস্ত দৃষ্টিশক্তি, বিচারশক্তি, বোধশক্তি। সংসারে জ্ঞানতপস্বী দুর্লভ নয়, কিন্তু মানুষের মনের মধ্যে চরিত্রের ক্রিয়া প্রভাবে তাকে ক্রিয়াবান করতে পারেন এমন মনীষী সংসারে কদাচ দেখতে পাওয়া যায়।

আচার্য নিজের জয়কীর্তি স্থাপন করেছেন উদ্যমশীল জীবনের ক্ষেত্রে—পাথর দিয়ে নয়, প্রেম দিয়ে।

আমরাও তাঁর জয়ধ্বনি করি।”

এই জয়ন্তী উপলক্ষে চাঁদা উঠেছিল প্রায় সতের হাজার টাকা। আর খরচ হয়ে ছিল একশ সাতচল্লিশ টাকা।

চিঠির কাগজ, হ্যান্ডবিল, পোষ্টার প্রভৃতির জন্য কাগজবিক্রেতারা কাগজ দিয়েছিলেন অমনি। ছাপাখানা অমনি ছেপেছিল।

যাঁরা চাঁদা আদায় করতে বেরুতেন তাঁরা ট্রামভাড়া নিজেদের গাঁট থেকে দিতেন। বিশেষ কারণে মোটর দরকার হলে এক ভদ্রলোক পেট্রল-সমেত তাঁর গাড়ি পাঠিয়ে দিতেন। হিসাব-রক্ষক পয়সা নিতেন না। রোজ সন্ধ্যায় এসে খেটে দিয়ে যেতেন। অনুষ্ঠানের দিন মিউনিসিপাল মার্কেটের ফুলওয়ালারা বিনা পয়সায় ফুল দিয়েছিল। অক্সিজেন-সিলিন্ডার অমনি পাওয়া গিয়েছিল। স্বেচ্ছাসেবকেরা নিজ নিজ পয়সায় চা খেয়ে আসত। সেদিন ছুটাছুটি করবার জন্য চারখানি মোটরের যোগাড় হয়েছিল। দরওয়ানরা বক্শিশ নিল না।

সরকার কান মলে স্ট্যাম্প ও টেলিগ্রামের খরচ নিল। করপোরেশন টাউন-হল ভাড়া মকুব করতে পারল না। তাদের আইনে আটকায়। এই দুই বাবত নগদ যে একশ সাতচল্লিশ টাকা খরচ হল তা উদ্যোক্তাদের মধ্যে তিন জন দিয়ে দিলেন। বহু মনীষীর রচনায় সমৃদ্ধ এক স্মারক-গ্রন্থ আচার্যদেবকে উপহার দেওয়া হল; তার প্রকাশের সমস্ত খরচ বহন করলেন একজন ধনী বিজ্ঞানী।

আদায়ী সতের হাজার টাকা পুরো মজুত রইল। তা বেড়ে আজ পঁচিশ হাজারে দাঁড়িয়েছে। কাগজ কিনে সরকারের হেফাজতে রাখা আছে; সুদ যা আসে দরিদ্র ছাত্রদের মাইনে দিতে বই কিনতে দেওয়া হয়। একটি পরিচালক কমিটি আছে।

(জ্ঞান ও বিজ্ঞান—বিশেষ সংখ্যা, ১৯৬০)

সর্বজনবাসিত দুই মহাজ্ঞানীর মধ্যে এক সময় হল tug of war—টানাটানি হেঁচড়া-হেঁচড়ি চলল প্রৌঢ় রাজশেখর বদুকে নিয়ে।

প্রফুল্লচন্দ্র রায় রবীন্দ্রনাথ ঠাকুরকে লিখলেন :—

....সম্প্রতি দেখিতেছি আপনি সত্য সত্যই আমার ক্ষতি করিতে প্রবৃত্ত হইয়াছেন। “গজলিকা”র প্রথম সংস্করণ বিক্রয় হইয়া গিয়াছে। কিন্তু যখন দেখি সাহিত্য-সম্রাট স্বয়ং তাহার সমালোচনায় প্রবৃত্ত হইয়াছেন, তখন অচিরে পর পর বারো হাজার কপি যে বিক্রয় হইবে তদ্ব্যবসায় সন্দেহ নাই। সেদিন গ্রন্থকার পরশুরামকে আমি বলিলাম, এ প্রকার সৌভাগ্য কদাচিত্ত কোনো লেখকের ঘটিয়া থাকে। এখন তাহার মাথা না বিগড়াইয়া যায়। তিনি আমারই হাতের তৈয়ারী একজন রাসায়নিক এবং আমার নির্দিষ্ট কোনো বিশেষ কার্যে অনেকদিন যাবৎ ব্যাপ্ত। কিন্তু এখন তিনি বদ্বিলেন যে, তিনি সাহিত্যক্ষেত্রেও একজন “কেটবিষ্ট”। সুতরাং আমাকে অসহায় রাখিয়া ত্যাগ করিতে ইচ্ছুক হইতে পারেন।

আর একটি কথা।—আপনি তো এগারো বারো বৎসর হইতেই কবিতা লিখিতেছেন। শুনিয়াছি ঈশ্বর গুপ্ত তিন বৎসর বয়সেই পদ্য রচনা করিয়াছিলেন এবং পোপ নাকি কিশোর বয়সেই বলেছিলেন—

Father father mercy take
I shall no more verses make!

অনেকে বলিয়া থাকেন যে, চল্লিশের পর নূতন ধরণের কেহ কিছু রচনা করিতে পারেন না। বিজ্ঞানের ইতিহাসে দেখিয়াছি নিউটন ৪০-৪৪ বৎসর বয়সের পূর্বে অসাধারণ প্রতিভার পরিচয় দেন; কিন্তু গ্যালিলিও সেই বয়স হইতে আরম্ভ করিয়া পর পর যুগান্তর সংঘটনকারী আবিষ্কার করেন।

আবার শুমান (Schuman) পঞ্চাশ বৎসর বয়সের পরে জড়বিজ্ঞানের নূতন আবিষ্কারের দ্বারা জগৎকে চমৎকৃত করেন। বিচার্ডসন (Father of English novelists) পুস্তককবিত্ব ছিলেন এবং আমার যেন স্মরণ হইতেছে, যখন পঞ্চাশ বৎসরের কাছাকাছি তখন তিনি নভেল লিখিতে হাত দেন। আমাদের পরশুরামও প্রায় ৪০-৪৪ বৎসর বয়সে লিখিতে আরম্ভ করিয়াছিলেন। আসল কথা এই যে আপনাকে কি অনুরোধ করিব যে, আর একটি তীব্র সমালোচনা করুন যে পরশুরামের হাত হইতে কুঠার খসিয়া পড়ে? এক সময় পড়িয়াছিলাম যে অনেক তত্ত্ব ও শক্তি গুহায় নিহিত থাকে; কিন্তু ভগবানের লীলা কে বদ্বিলবে, কাহাকে কখন গুপ্ত অবস্থা হইতে সুপ্রকাশ করিয়া তুলেন।

ভবদীয়
শ্রীপ্রফুল্লচন্দ্র রায়

উত্তরে রবীন্দ্রনাথ লিখলেন—

শান্তিনিকেতন।

সহৃদয়,

বসে বসে Scientific American পড়িছিলাম, এমন সময় চিঠির খামের কোণে বিশ্ব-বিদ্যালয়ের বিজ্ঞান-সরস্বতীর পদাঙ্ক দেখতে পেয়ে সন্দেহ হলো আমার হৃৎপক্ষ থেকে কাব্য-সরস্বতীকে বিদায় করে তিনি স্বয়ং আসন নেবেন এমন একটা চক্রান্ত চলেছে। খুলে দেখি—যাকে ইংরেজিতে বলে টেবিল-ফেরানো—আমারই পরে অভিযোগ যে আমি রসায়নের কোঠা থেকে ভুলিয়ে ভদ্রসন্তানকে রসের রাস্তায় দাঁড় করাবার দৃষ্টান্তে নিযুক্ত। কিন্তু আমার এই অজ্ঞানকৃত পাপের বিরুদ্ধে নালিশ আপনার গ্রন্থে শোভা পায়না; একদিন আমার এই অজ্ঞানকৃত পাপের বিরুদ্ধে নালিশ আপনার গ্রন্থে শোভা পায়না; একদিন চিত্রগুপ্তের দরবারে তার বিচার হবে। হিসাব করে দেখবেন কত ছেলে যারা আজ পেট-

মোটো মাসিক পত্রে ছোট-গল্প আর মিলহারা ছন্দের কবিতায় সাহিত্য-লোকে একেবারে কিম্বিকম্বিকান্ড বাঁধিয়ে দিতে পারত, এমন কি লেখাদায়গ্রস্ত সম্পাদকমণ্ডলীর আশীর্বাদে যারা দীপ্তশিখা সমালোচনায় লম্বাকান্ড পর্যন্ত বড় বড় লাফে ঘটিয়ে তুলত, তাদের আপনি কাউকে বি. এস্-সি. কাউকে ডি. এস্-সি-লোকে পার করে দিয়ে ল্যাবরেটরির নিজর্জন নিঃশব্দ সাধনায় সম্ম্যাসী করে তুললেন। সাহিত্যের তরফ থেকে আমি যদি তার প্রতিশোধ নিতে চেষ্টা করে থাকি কতটুকুই বা কৃতকার্য হয়েছি। আপনার রাসায়নিক বন্ধুটিকে বলবেন, মাসিক-পত্রবলে যে সব জীবাত্মা হয়ত বা সাহিত্যবীর হতে পারত ভূষণ্ডীর মাঠে তাদের অঘটিত সম্ভাবনার প্রেতগুলির সঙ্গে আপনার মোকাবিলার পালা যেন তিনি রচনা করেন।

আমার কথা যদি বলেন—আপনার চিঠি পড়ে আমি অন্ততপ্ত হইনি, বরঞ্চ মনের মধ্যে একটু গুমর হয়েছে। এমন কি ভাবছি স্বামী শ্রম্ভানন্দের মত শূন্যের কাজে লাগব; যে সব জন্ম-সাহিত্যিক গোলেমালে ল্যাবরেটরির মধ্যে ঢুকে পড়ে জাত খুইয়ে বৈজ্ঞানিকের হাটে হারিয়ে গিয়েছেন তাঁদের ফের একবার জাতে তুলব। আমার এক একবার সন্দেহ হয় আপনিও বা সেই দলের এক জন হবেন। কিন্তু আপনার আর উদ্ধার নেই। যাই হোক, আমি রস যাচাইয়ের নিয়মে আঁচড় দিয়ে দেখলেম আপনার বেঙ্গল কেমিক্যালের এই মানুষটি একেবারেই কেমিক্যাল গোল্ড নন, ইনি খাঁটি খনিজ সোনা।

এ অঞ্চলে যদি আসতে সাহস করেন তা হলে মোকাবিলায় আপনার সাথে ঝগড়া-ঝাঁটি করা যাবে।

আপনার

ইতি ১৮ অগ্ৰাণ, ১৩৩২।

রবীন্দ্রনাথ ঠাকুর।

আচার্য প্রফুল্লচন্দ্র

শ্রীবিপিন বিহারী চক্রবর্তী

স জাতো যেন জাতেন য়াতি বংশঃ সম্ভ্রান্তম্ ।

বাংলা ১২৬৮ সনের শ্রাবণ মাসে (১৮৬১ খৃষ্টাব্দে) দেশমান্য আচার্য প্রফুল্লচন্দ্র রায় রাড়ুলী গ্রামে জন্মগ্রহণ করেন। ইহার প্রপিতামহ মানিকচন্দ্র রায় প্রথমে নদীয়ার, শেষে যশোহরের কালেক্টারীর দেওয়ান ছিলেন; পরে ঐ পদের নাম সেরেস্তাদার হয়। ১৮২৩ সালে ইহার মৃত্যু হয়। আচার্যদেবের পিতামহ আনন্দলাল রায় যশোহর কালেক্টারীর পেশকার এবং পরে সেরেস্তাদার হন। ১৮৬৩ খৃষ্টাব্দের মার্চ মাসে ইহার মৃত্যু হয়। আচার্যদেবের পিতা হরিশ্চন্দ্র কৃষ্ণনগর কলেজের কাপ্তান ডি. এল. রিচার্ডসন-এর ছাত্র ছিলেন। লোকে বলে যে ইহার ন্যায় ইংরাজী জানা অধ্যাপক ভারতবর্ষে আর আসেন নাই। স্বর্গীয় রামতনু লাহিড়ী হরিশ্চন্দ্রকে বাংলা ও সংস্কৃত পড়াইতেন এবং সাগরদাড়ী সেখ-পাড়া নিবাসী মৌলবী মখমলের নিকট ইনি আরবী ও পার্সী পড়েন। দুর্গাপুরের সেখ হাতেম মৌলবীর পিতা সেখ মাদারবল্ল আখুঞ্জীর নিকট হরিশবাবু পার্সী শেখেন। এই মৌলবী সাহেব কলিকাতা মাদ্রাসার শিক্ষক ছিলেন। হরিশবাবু কম বেশী ৭টি ভাষায় ব্যুৎপন্ন ছিলেন :—ইংরাজী, বাংলা, সংস্কৃত, কায়েতী বা হিন্দী, আরবী, পার্সী ও উর্দু; ইহার মধ্যে বাংলা ও পার্সী তিনি ভাল জানতেন।

হরিশবাবু অল্পদিন চাকরী করিয়াছিলেন। তিনি যশোহর কালেক্টারীতে প্রধান মন্সী ছিলেন। কলিকাতার ফোর্ট উইলিয়ম কলেজে প্রথমে শিক্ষকতা করেন, পরে তিনি নিমক বিভাগের দারোগা হন। ইহার পর তিনি বাড়ীতে আসিয়া বিষয় কর্মের তত্ত্বাবধান করিতেন। ইহাদের পরিবার খুব পুরাতন ও সম্ভ্রান্ত।

(বংশপঞ্জী)

রঘুনন্দন

রামকৃষ্ণ

রামপ্রসাদ

দয়্যারাম

মানিকচন্দ্র

আনন্দলাল

হরিশ্চন্দ্র

(১) জ্ঞানেন্দ্রচন্দ্র (২) নলিনীকান্ত (৩) প্রফুল্লচন্দ্র (৪) পূর্ণচন্দ্র (৫) বৃন্দদেব



কাঁকর খাসনবিস, গদাইপুরের কাজি এবং মলুই-এর চৌধুরী এই তিনঘর একসঙ্গে নবাবী আমলে এদেশে আসেন। মলুই-এর চৌধুরীদের তিন ভ্রাতা কমল, রঘুনন্দন ও শ্রীহরি পুরাইকাটী গদাইপুর হইতে উঠিয়া আসেন; কমল হরিডালী গ্রামে বাস করেন। রঘুনন্দন ও শ্রীহরি রাড়ুলীতে আসেন; রায়-আলি হইতে রাড়ুলী নাম হইয়াছে এইরূপ জনশ্রুতি।

এই বংশের রামপ্রসাদ রায় মর্শিদাবাদের নবাব সিরাজদ্দৌল্লার সময় এ দেশে আসেন। শিবদাস চোখণ্ডী নামক এই বংশের একজন, মলুই নামক সুবিস্তীর্ণ পরগণা পাঠান নবাবদিগের নিকট হইতে বন্দোবস্ত লন। ১৩৯৯ খৃষ্টাব্দে রঘুনন্দন রায়ের ভ্রাতা কমল ও গোপী রায় অবস্থার বিপর্যয় হেতু উক্ত পরগণা চাঁচরার রাজা মনোহর রায়ের নিকট বিক্রয় করেন।

হরিশবাবু কলিকাতাস্থ ইণ্ডিয়ান এসোসিয়েশনের একজন সভ্য ছিলেন। রাজা দিগম্বর মিত্র, বাম্পী কৃকদাস পাল, মহাত্মা শিশিরকুমার ঘোষ এবং পণ্ডিত ঈশ্বরচন্দ্র বিদ্যাসাগর হরিশবাবুর বন্ধু ছিলেন। উক্ত রাজা বাহাদুর হরিশবাবুর বাড়ীতে আসিয়া আতিথ্য গ্রহণ করিতেন। আচার্যদেবের জন্মের পূর্বে রাড়ুলী অঞ্চলে শিক্ষা বিস্তারের কিরূপ ব্যবস্থা ছিল তাহা জানাবার জন্য ১৮৫৮ সালের ১০ই ফেব্রুয়ারী (বাংলা ২৯ মাঘ, ১২৬৪) তারিখের “সংবাদ প্রভাকর” হইতে কয়েকছত্র নিম্নে অবিকল উদ্ধৃত করিতেছি :—

“কিয়ন্দিবস অতীত হইল জিলা যশোহরের অন্তর্গত রাড়ুলী গ্রাম নিবাসী শ্রীযুক্ত বাবু হরিশচন্দ্র রায়চৌধুরী মহাশয় এবং অন্যান্য কতিপয় মহাত্মাগণের প্রযত্নে প্রোক্ত রাড়ুলী পল্লীতে গবর্ণমেন্টের সাহায্যকৃত একটি স্বদেশীয় ভাষার বিদ্যালয় সংস্থাপিত হয়; বিদ্যালয় প্রতিষ্ঠিত হওয়াবধি বালকবালিকারা যথাবিধিক্রমে শিক্ষাপ্রাপ্ত হইয়া আসিতেছে এবং সুশিক্ষার প্রভাবে তাহারা স্ব স্ব পঠিত বিষয়ে একপ্রকার বৃত্তপন্নও হইয়াছে বটে; ফলতঃ অতি অল্পকালের মধ্যে এই রাড়ুলী বিদ্যালয়স্থ ছাত্রেরা যেরূপ কৃতকার্য হইয়াছেন, অন্যত্র প্রায় সেরূপ শুনিতে পাওয়া যায় না। বিগত পৌষ মাসে জিলা যশোহরের শ্রীযুক্ত কালেক্টর সাহেব তথা খুলনিয়ার ডেপুটী ম্যাজিস্ট্রেট শ্রীযুক্ত বাবু ঈশ্বরচন্দ্র মিত্র মহাশয় এবং অন্যান্য কতিপয় সন্নিবিশ্বদ্যাশীল মহাত্মাগণ অত্র বিদ্যালয়ে শ্রুভাগমন পুরঃসর বালক-বালিকাকুলের পরীক্ষা গ্রহণে যথোচিত সন্তোষ প্রাপ্ত হইয়াছেন। এস্থলে বিদ্যালয়ের সমুন্নতির বিস্তারিত বিবরণ করিতে হইলে এই বলা উচিত যে বিদ্যালয়ের পণ্ডিত শ্রীযুক্ত মোহনলাল তর্কবাগীশ মহাশয়ের সুনিয়মে শিক্ষাপ্রদান ও প্রস্তাবিত বাবু হরিশচন্দ্র রায়-চৌধুরী মহাশয়ের অবিচলিত অধ্যবসায় ও গাঢ়তর উৎসাহই তাহার প্রধান কারণ।”

হরিশবাবু ১৮৭০ সালে ডিসেম্বর মাসে পুত্রদিগকে লেখাপড়া শিখাইবার উদ্দেশ্যে সপরিবারে কলিকাতায় যান এবং ১৩২ নং আমহার্ট স্ট্রীটে চাঁপাতলা বাড়ীতে বাস করেন। ঐ বাড়ীতে তাহারা এই সময় হইতে ১৮৮৯ সালের অক্টোবর পর্যন্ত অবস্থান করেন। বাড়ীটা দোতালা; মাসিক ভাড়া ৩০। ১৮৭০ সনের প্রথমে কলিকাতায় পানীয় জলের কল হয়।

১৩০২ সনের (ইং ১৮৯৫) ২৭ বৈশাখ তারিখে প্রায় সত্তর বৎসর বয়সে হরিশচন্দ্রের মৃত্যু হয়। মৃত্যুকালে তিনি পাঁচপুত্র ও এক কন্যা রাখিয়া গিয়াছিলেন। হরিশচন্দ্র ভাড়াশিমলা গ্রামে নবকৃষ্ণ বসু মহাশয়ের কন্যা ভুবনমোহিনীকে বিবাহ করেন। ১৩১০ সনে ভুবনমোহিনীর মৃত্যু হয়।

হরিশচন্দ্র কিরূপ বিদ্যাৎসাহী ও স্ত্রীশিক্ষার কিরূপ পক্ষপাতী ছিলেন তাহা বুঝা যায়। তিনি ১৮৬৮ সাল হইতে মাঝে মাঝে কলিকাতায় আসিয়া বাস করিতেন। স্বর্গীয় ঈশ্বরচন্দ্র বিদ্যাসাগর মহাশয় হরিশবাবুর স্ত্রী ভুবনমোহিনীকে বাংলা শিক্ষা

করিতে সহায়তা করিতেন। মেম ও দেশীয় খুঁটান মহিলাদ্বারা হরিশচন্দ্র স্ত্রীকে লেখাপড়া ও কাপেটের কাজ শেখান।

খুলনা জেলার ইতিহাস লিখিতে যাইয়া ঐতিহাসিক সতীশচন্দ্র লিখিয়াছেন :—

আচার্য প্রফুল্লচন্দ্র তোমার সন্তান।
দানবীর, জ্ঞানবীর, কে তাঁর সমান ॥
উজ্জ্বল তোমার অঙ্ক তাঁহার প্রভায়।
বিজ্ঞান সাধনা তাঁর ধরাতলে গায় ॥
দয়ার সাগর সেই বাঁচাইল প্রাণ।
দুর্ভিক্ষপীড়িত তব ক্ষুধিত সন্তান ॥

আচার্যদেব ১৮৭০ সাল পর্যন্ত রাড়ুলী মধ্যইংরাজী স্কুলে পড়িয়া ১৮৭১ সালে কলিকাতায় যান এবং হেয়ার স্কুলে ভর্তি হন। ইহার মধ্যমাগ্রেজ ঐ স্কুল হইতে প্রবেশিকা পরীক্ষায় প্রথম বিভাগে পাশ হন। আচার্যদেব ঐ স্কুলে ৪র্থ শ্রেণী পর্যন্ত পড়েন। এর পর কঠিন আমাশয়রোগে আক্রান্ত হন এবং তাঁহার সুস্থ হইতে দেড় বৎসর সময় লাগে। বাড়ী আসিয়া টোটকা ঔষধে ঐ রোগ হইতে মুক্তি পান। ইহাতে তাঁহার এক বৎসর সময় নষ্ট হয়। ১৮৭৬ সালের জুলাই মাসে তিনি এ্যালবার্ট স্কুলে ভর্তি হন। উক্ত বিদ্যালয়ের সন্মান বঙ্গদেশ-ময় ব্যাপ্ত হইয়া গিয়াছিল, এবং ইহা একটি শ্রেষ্ঠ বিদ্যালয় বলিয়া গণ্য হইত। কেশবচন্দ্র সেনের অনুজ লক্ষ্মপ্রতিষ্ঠ কৃষ্ণবিহারী সেন তখন এই স্কুলের অধিনায়ক ছিলেন। উক্ত স্কুল হইতে আচার্যদেব ১৮৭৮-৭৯ সালে প্রথম বিভাগে এন্ট্রাস পরীক্ষায় উত্তীর্ণ হন এবং স্কুলের একটি ফন্ড হইতে দুই বৎসরের জন্য মাসিক ৫ টাকা করিয়া বৃত্তি পান। ১৮০০ সালে মেট্রোপলিটান ইনির্সটিটিউশন হইতে তিনি দ্বিতীয় বিভাগে এফ. এ. পাশ করেন। পরে সেইখানে বি. এ. পড়িবার সময় গিলখাইন্ট বৃত্তি পরীক্ষায় উত্তীর্ণ হইয়া ৭,০০০ টাকা বৃত্তি পান (১৮৮২)। ইহাতে গ্রীক, ল্যাটিন, ফরাসী প্রভৃতি ভাষা শেখা দরকার হইত। প্রফুল্লচন্দ্র যখন বি. এ. পড়েন, তখন কলেজের পড়া পড়িয়া গিলখাইন্ট বৃত্তি পরীক্ষার জন্য পৃথকভাবে প্রস্তুত হন। বাড়ীর কেহ জানিতেন না যে ইনি নতুন কোন পরীক্ষার জন্য প্রস্তুত হইতেছেন।

মহাত্মা কেশবচন্দ্র সেনের বক্তৃতা ও ধর্মোপদেশ শ্রুতিবার জন্য প্রফুল্লচন্দ্র প্রায়ই ব্রাহ্মসমাজে যাইতেন। ১৮৮২ সাল পর্যন্ত তিনি উক্ত সমাজের সভ্য ছিলেন। গিলখাইন্ট বৃত্তি লইয়া ইনি বিলাতে যান। বিলাতে প্রথম বি. এস-সি এবং পরে এডিনবরা বিশ্ববিদ্যালয়ের ডি. এস-সি উপাধি লাভ করেন। এদেশে আসিয়া কর্মজীবন আরম্ভ করিবার পর তিনি সি. আই. ই. এবং নাইট উপাধিতে ভূষিত হইয়াছিলেন, তবু তাঁহার অহংকার ছিলনা। আড়ম্বর বা বিলাসিতা ছিলনা। অনাড়ম্বর সরল জীবন যাপন করিতে তিনি অভ্যস্ত ছিলেন। সামান্য একখানি ধূতি বা লুঙ্গি, ছোট একটা জামা এবং তাঁহার সমান লম্বা একগাছা ছড়ি লইয়া তিনি এখানে ওখানে ভ্রমণ করিতেন।

দেশের অর্থকষ্টের দিনে তিনি গ্রামে গ্রামে ঘুরিয়া চরখা ও খন্দরের উপকারিতা সম্বন্ধে উপদেশ দিয়াছেন। দুর্ভিক্ষপীড়িত লোকের আত্মনাদে তাঁহার হৃদয় দ্রব হইত। সংকট-হ্রাণ সমিতির কর্তা হইয়া তিনি উত্তর বঙ্গের বন্যার ভীষণ ধ্বংসলীলা হইতে ও দুর্ভিক্ষের করাল কবল হইতে অনেককে রক্ষা করিয়াছেন।

আমাদের রাড়ুলী অঞ্চলে যাহাতে শিক্ষাবিস্তার হয় সে উদ্দেশ্যে এডুকেশন সোসাইটীর হাতে ১০,০০০ টাকা দান করিয়াছিলেন। স্কুল ও পাঠাগারের জন্য এবং পানীয়

জলের অভাব মোচনের জন্য তিনি অকাতরে দান করিয়া গিয়াছেন। বৎসর বৎসর কত দুঃস্থ কলেজের ছাত্রকে তিনি বেতন সাহায্য করিয়া গিয়াছেন।

লোকে আদর্শের অনুকরণ করে। আমাদের সম্মুখে তিনি বিরাট জীবিত আদর্শ ছিলেন। প্রফুল্লচন্দ্র তাঁহার জীবনের কৃতকার্যতার সম্বন্ধে বলিয়াছেন—“এক সময় একটি মাত্র কাজে হাত দিবে এবং তাহাই সুসম্পন্ন করিবে—এই একনিষ্ঠা সফলতার কারণ।”

আচার্যদেব ১৮৮২ সালে আগষ্ট মাসে ক্যালিফোর্নিয়া নামক জাহাজে বিলাত যাত্রা করেন। ডাক্তার পি. কে. রায় মহোদয়ের ভ্রাতা ডাক্তার ডি. এন. রায় (স্বাক্ষরকানাক রায়) চিকিৎসাবিদ্যা অধ্যয়নের জন্য তাঁহার সহযাত্রী হইয়া বিলাত যান। প্রফুল্লচন্দ্র বিলাতে গিয়া প্রথমে লন্ডনে, পরে এডিনবরাতে অবস্থান করেন। ১৮৮৮ সালের আগষ্ট মাসে কলিকাতায় ফিরিয়া আসেন। ১৮৮৯ সালের জুন মাসে মাসিক ২৫০ টাকা বেতনে প্রেসিডেন্সী কলেজে অধ্যাপকের পদে নিযুক্ত হন।

এই সময়ে সুবিখ্যাত টনি সাহেব প্রেসিডেন্সী কলেজের অধ্যক্ষ এবং আলেকজান্দার পেড্‌লার (যিনি পরে স্যার হইয়াছিলেন) রসায়ন শাস্ত্রের প্রধান অধ্যাপক ছিলেন।

প্রফুল্লচন্দ্র যখন কর্মপ্রাপ্তির জন্য চেষ্টা করিতেছিলেন, তখন ক্রফ্ট সাহেব শিক্ষা বিভাগের ডিরেক্টর। তিনি এই সময় দার্জিলিং-এ ছিলেন। ২৫০ টাকা বেতনে নিযুক্ত হইয়াছেন শুনিয়া প্রফুল্লচন্দ্র মনের দুঃখে দার্জিলিং-এ ডিরেক্টর সাহেবের নিকট ছুটিয়া যান। কিন্তু ডিরেক্টর সাহেব তাঁহার আবেদন সমবেদনার সহিত গ্রহণ না করিয়া বরঞ্চ একটু তীব্রভাবেই প্রদর্শন করিয়াছিলেন।

১৮৯৪ সালে বেঙ্গল গবর্ণমেন্ট ডাঃ রায়কে বিলাত পাঠান প্রধান প্রধান রসায়নাগার পরিদর্শনের জন্য।

১৯০৪ সালের বর্ষাকালে ৬ মাসের জন্য এবং ১৯১২ সালে ৩-৪ মাসের জন্য ডাঃ রায় বিলাত যান লন্ডন নগরে ব্রিটিশ সাম্রাজ্যের যাবতীয় বিশ্ববিদ্যালয়ের এক মহা-সম্মেলনে কলিকাতা বিশ্ববিদ্যালয়ের প্রতিনিধি হিসাবে।

১৯২০ সালে ৬ মাসের জন্য এবং ১৯২৬ সালে ২-৩ মাসের জন্য আবার তিনি বিলাত যান।

বেঙ্গল কেমিক্যাল ও ফার্মাসিউটিক্যাল ওয়ার্কস প্রতিষ্ঠা আচার্যদেবের প্রধান কীর্তি। নিজ খরচাবাদে ৮০০ টাকা বাঁচাইয়া তাহার দ্বারা ১৮৯২ সালে তিনি ইহার পত্তন করেন। দেশীয় গাছ-গাছড়ায় সস্তাদামে ঔষধ প্রস্তুত করা যায়, ইহা তিনি এই কারখানা স্থাপন করিয়া দেখাইয়াছেন। এখানে সহস্র সহস্র শিক্ষিত লোক, বহু সহস্র মৃতে, মজুর, গাড়োয়ান ইত্যাদি কার্য করিয়া অন্নসংস্থান করিতেছে। ব্যবসায়ে এত সফলতা লাভ করা সৌভাগ্যের বিষয়। তাঁহার কাছে কেউ যদি চাকরীর উমেদারী করিত, তিনি বলিতেন, ব্যবসা করনা কেন?

বঙ্গীয় সংকট-গ্রাণ সমিতি স্থাপন করিয়া ইনি আর একটি কীর্তি রাখিয়াছেন। দুর্ভিক্ষ, জলপ্লাবন ইত্যাদি আপদে কত লোক যে সাহায্য পাইয়াছে তাহার ইয়ত্তা নাই।

যখন তাঁহার বয়স ৭০ বৎসর উত্তীর্ণ হয়, তাঁহার সম্বন্ধে কাগজে দেখি :—“আচার্য প্রফুল্লচন্দ্রের জীবনের সপ্ততি বর্ষ উত্তীর্ণ হইল। রসায়নশাস্ত্রের শিক্ষকরূপে, রাসায়নিক

গবেষণার অগ্রদূতরূপে, মানবতার হিতার্থী হিসাবে, জাতির কল্যাণকামীরূপে, চরখার পুনঃ প্রবর্তনের প্রধান প্রচারকরূপে, তাঁহার খ্যাতি সর্বত্র পরিব্যাপ্ত। এই বৃদ্ধ বয়সেও তিনি বালকের ন্যায় সদাপ্রফুল্ল। যে বেঙ্গল কেমিক্যালের বর্তমান মূলধন ৫০ লক্ষ টাকা, তিনিই ইহার প্রতিষ্ঠাতা। অতি অল্প মূলধন লইয়া ইহা আরম্ভ করিবার সাহস এবং ইহার ভবিষ্যৎ উন্নতির স্বপ্ন তিনিই প্রথম পোষণ করিয়াছিলেন।”

উত্তরবঙ্গের জলপ্লাবনজনিত দুর্ভিক্ষের সময় আত্মসেবায় শারীরিক ক্রেশের প্রতি ভ্রূক্ষেপ না করিয়া তিনি অবিশ্রাম গ্রাম হইতে গ্রামান্তরে ভ্রমণ করিয়াছিলেন। সেবাকার্যের পরিদর্শন ও সুষ্ঠুভাবে এই কার্যের পরিচালনার ভার স্বীয় শ্রমক্ষে বহন করিতে তিনি এতটুকু ক্রেশ বোধ করেন নাই।

প্রফুল্লচন্দ্র ব্যবসায়ী নন। তিনি আজীবন বিজ্ঞানের উপাসক। অনেক ব্যবসা-বৃদ্ধিসম্পন্ন লোক অনেক সময় কারবার দাঁড় করাইতে সক্ষম হন না; আর তিনি রসায়নের সেবা করিয়াও বেঙ্গল কেমিক্যাল কারখানাটি সুন্দররূপে খাড়া করিয়াছেন। পূর্বেই উক্ত হইয়াছে যে এই কারবার অতি অল্প মূলধন লইয়া আরম্ভ করা হয়।

আচার্যদেবের প্রিয় ছাত্র ডাঃ নীলরতন ধর, ডাঃ জ্ঞানেন্দ্রচন্দ্র ঘোষ, ডাঃ মেঘনাদ সাহা, ডাঃ জ্ঞানেন্দ্রনাথ মুখার্জি, ডাঃ প্রফুল্লকুমার মিত্র, ডাঃ যতীন্দ্রনাথ সেন, জিতেন্দ্রনাথ রক্ষিত, ডাঃ হেমেন্দ্রকুমার সেন, অধ্যাপক প্রিয়দারঞ্জন রায়, ডাঃ রসিকলাল দত্ত, ডাঃ বিমানবিহারী দে প্রভৃতি নানা মৌলিক প্রবন্ধে আপন আপন কৃতিত্ব প্রকাশ করিয়াছেন।

১৯১৬ সালে প্রফুল্লচন্দ্র সরকারী কার্য হইতে অবসর গ্রহণ করেন। ১৯৪২ সালে বিজ্ঞানচর্চার জন্য আচার্য প্রফুল্লচন্দ্র কলিকাতা বিশ্ববিদ্যালয়কে দশ হাজার টাকা দান করেন।

৬০ বৎসর পূর্ণ হইলে তিনি বিশ্ববিদ্যালয়কে পত্র দেন :—“আমার জীবনের বাকী দিনগুলি বিজ্ঞানমন্দিরের পরীক্ষাগারে কাটাইয়া দিতে খুবই ইচ্ছা করি, কিন্তু এই কাজের জন্য বিশ্ববিদ্যালয়ের নিকট হইতে আর পারিশ্রমিক লইতে আমি অক্ষম। সেই-জন্য আমার নিবেদন যে পালিত অধ্যাপকের প্রাপ্য মাসিক এক হাজার টাকা আমি বিশ্ববিদ্যালয়কে প্রত্যর্পণ করিতেছি, যাহাতে এই টাকা বিজ্ঞানমন্দিরের রাসায়নিক বিভাগে ব্যয় হইতে পারে।”

বাংগালী তথা ভারতকে যাঁহারা বিশ্বের দরবারে পরিচিত করিয়াছেন আচার্য প্রফুল্লচন্দ্র তাঁহাদের অন্যতম—একথা আজ বাংলালীকে নূতন করিয়া বলার প্রয়োজন নাই। আচার্য রায় যদি শৃঙ্খল বিজ্ঞানের ক্ষেত্রে নিজ উচ্চ আসন লইয়াই সন্তুষ্ট হইতেন, তবুও তিনি দেশবাসীর চিন্তে অমর হইয়া থাকিতেন। কিন্তু তিনি সেরূপ পাত্র ছিলেন না। তাঁহার বিশাল হৃদয়ে দেশবাসীর প্রতিটি প্রয়োজনীয় কথা স্থান পাইত। তিনি দেখিয়াছিলেন, সংসারে উপার্জনক্ষম ব্যক্তির তিরোধানে কত সংসার ভাঙিয়া যায়, কত বিধবা ও অনাথ শিশু অসীম দুর্দ্দশায় নিপতিত হয়। আর শৃঙ্খল তাই বা কেন; দেশের বেশীর ভাগই কর্মজীবনের শেষ প্রান্তে উপনীত হইয়া দেখে যে তাহাদের সন্তানের ভাঙারে কিছুই নাই। অনশনের হাত হইতে পরিত্রাণের উপায় নাই। অথচ এই দুর্দিনে সমস্যার সমাধান হইতে পারে জীবনবীমার সাহায্যে। তাই তিনি নিজে অগ্রণী হইয়া দেশের কয়েকজন নেতৃস্থানীয় ব্যক্তিকে লইয়া আর্থস্থান ইনসিওরেন্স কোম্পানী গঠন করেন।

প্রফুল্লচন্দ্রের প্রণীত “হিন্দু রসায়নের ইতিহাস” নামক গ্রন্থ ভারতবাসীর অতি

গৌরবের সামগ্রী। ইহার ১ম খণ্ড ১৯০২ খৃষ্টাব্দে প্রকাশিত হয়। হিন্দু আয়ুর্বেদ, চরক, সুশ্রুত, বাগভট্ট, শাঙ্গাধর ও চক্ৰপাণি, বেদ, পুরাণ, তন্ত্র, হিন্দু, বৌদ্ধ ও মুসলমান শাস্ত্র, ইতিহাস, কাব্য এবং দর্শনশাস্ত্র মণ্ডন করিয়া এই অভিনব গ্রন্থ প্রণয়ন করিতে হইয়াছে। ১৯০৪ খৃষ্টাব্দে ইহার দ্বিতীয় সংস্করণ প্রকাশিত হয়। ১৯০৯ সালে উক্ত গ্রন্থের ২য় ভাগ প্রকাশিত হয়। ১৯৪৪ খৃষ্টাব্দের ১৬ই জুন—১৩৫১ সালের ২রা আষাঢ় এই মহাপুরুষ সাধনোচিত ধামে গমন করেন। আমাদের সান্নিধ্য এই যে, মানবজীবনে সংস্কার সম্পাদনম্বারা যতদূর যশোলাভ হইতে পারে, আচার্য প্রফুল্লচন্দ্র পূর্ণমাত্রায় তাহার অধিকারী হইয়া গিয়াছেন। যদি “কীর্ত্তির্যস্য স জীবতি” এই মহাজন বাক্যে অণুমাত্র সত্য থাকে তাহা হইলে তিনি মরিয়াও জীবিত আছেন।

আচার্য প্রফুল্লচন্দ্র

শ্রীরায় হরেন্দ্রনাথ চৌধুরী

ইংরাজী ১৯০৪ সালে বরাহনগর ভিক্টোরিয়া স্কুল হইতে প্রবেশিকা পরীক্ষায় উত্তীর্ণ হইয়া অপূর্ণ পনের বৎসর বয়সে প্রেসিডেন্সী কলেজে ভর্তি হই। কৈশোর সীমায় তখনও তরুণ মনে অসাধারণ কিছু গভীর রেখাপাত করিবার দিন অতীত হয় নাই। কলিকাতা উপকন্ঠের ছাত্র, কলিকাতার মধ্যস্থলের বৃহত্তম কলেজে ভর্তি হইয়া যে বিস্ময় অনুভব করিয়াছিলাম তাহা কাটাইয়া উঠিতে বেশ কিছুদিন গিয়াছিল। প্রেসিডেন্সী কলেজের যেমন প্রাসাদতুল্য প্রকাণ্ড বাড়ী তেমনি সেখানে ছিল সে যুগের প্রখ্যাত দেশীয় অধ্যাপক-গণের সমাবেশ—যাহারা কিন্তু ভারতীয় হইলেও ইন্ডিয়ান এডুকেশন সার্ভিস-এ ছিলেন অপাণ্ড্বেয়। দর্শন শাস্ত্রে সুপণ্ডিত প্রেসিডেন্সী কলেজের ইতিহাসে প্রথম বাঙালী অধ্যাপক ডক্টর পি. কে. রায়, পদার্থবিজ্ঞানের অধ্যাপক আচার্য জগদীশচন্দ্র বসু, রসায়নের অধ্যাপক আচার্য প্রফুল্লচন্দ্র রায়, ইংরাজীর অধ্যাপক বহুবিশ্রুত এইচ. এম. পার্সিভ্যাল, শ্রীঅরবিন্দের কবি-ভ্রাতা ইংরাজ কবি লরেন্স বিনিয়নের বন্ধু অধ্যাপক মনোমোহন ঘোষ, সংস্কৃতের অধ্যাপক উত্তরকালে মহামহোপাধ্যায় উপাধিভূষিত পণ্ডিত সতীশচন্দ্র বিদ্যভূষণ, পরবর্তীকালীন কলিকাতা বিশ্ববিদ্যালয়ের পঞ্চম-জর্জ প্রফেসর ডক্টর আদিত্যনাথ মুখোপাধ্যায় প্রভৃতির অধ্যাপনায় প্রেসিডেন্সী কলেজ সে সময় ছিল সমুজ্জ্বল আলোকতীর্থ। এই অধ্যাপকমণ্ডলীর মধ্যে অনন্যসাধারণ ছিলেন আচার্য প্রফুল্লচন্দ্র। তাঁহার রক্তচারা জীবন, অনাড়ম্বর জীবনযাত্রা, সরল ব্যবহার, ছাত্রদের দূরে না রাখিয়া অতি নিকটে আসিবার সুযোগদান তাঁহাকে শুধু গভীর শ্রদ্ধার পাত্র করে নাই, ছাত্রদের একান্ত আশ্রয়ণীয় করিয়া ছিল। স্নেহে ও ক্ষমায় তিনি ছাত্রদের আপনজন করিয়া লইয়াছিলেন। পৃষ্ঠে তাঁহার স্নেহ করাঘাতের অমৃতস্পর্শ অনেকের কাছে অবিস্মরণীয়। প্রাক্ গান্ধী যুগের বিলাত প্রত্যাগত হইলেও বিজাতীয় আদব-কায়দা ও চলার ভঙ্গী অনুকরণ করিতে তাঁহাকে কোন দিনও দেখা যায় নাই। শিক্ষার মাধ্যম সেকালে ইংরাজী থাকিলেও ছাত্রগণের বোধসৌকর্য্যার্থে তিনি অনেক সময় বাংলা ভাষা ব্যবহার করিতেন। আর ছাত্রেরা যদি বলিত “স্যার আপনিই ত যখন ইচ্ছা বাংলা বলেন আর কেহই-ত বলেন না” তখন তিনি বলিতেন “নানান দেশের নানান ভাষা, বিনে স্বদেশী ভাষা মেটে কি আশা?” তখনও স্বদেশী যুগের প্রবর্তন হয় নাই অথচ তাঁহার বেশ-ভূষায় না ছিল বিলাতিয়ানা, না ছিল বিলাতী কাপড়। তাঁহার দীর্ঘ বিলাত প্রবাস ও বিলাতে অর্জিত অসামান্য বৈজ্ঞানিক জ্ঞান তাঁহার সহজ স্বদেশপ্রীতিকে অভিভূত করে নাই—না দৈনন্দিন জীবনযাত্রায়, না রসায়ন শাস্ত্রের গবেষণায়, না মহাবিদ্যালয়ের সীমাবহিত বৃহত্তর কর্মক্ষেত্রে কোথায়ও। তাই যুগপরিবর্তনে তিনি গান্ধীজীর প্রবর্তিত চরখাবাদ সহজেই গ্রহণ করিয়াছিলেন, খন্দরধারী ও প্রচারক হইয়াছিলেন, ভারতীয় রসায়ন চর্চার লুপ্ত রত্ন উদ্ধার করিয়া লিখিয়াছিলেন *History of Hindu Chemistry*, গঠন করিয়াছিলেন সর্বোত্তম ছাত্রদের লইয়া *Indian School of Chemistry*, সংস্থাপন করিয়াছিলেন *Bengal Chemical and Pharmaceutical Works*, প্রেরণা দিয়াছিলেন কত না রাসায়নিক শিক্ষাপ্রতিষ্ঠায়। আর দুর্ভিক্ষের প্রতিকারে স্বৈত শাসনের দিনে সরকার যখন উদাসীন, আর আমরা ব্যবস্থা-পরিষদে তারস্বরে সরকারের উদাসীন্যের সমালোচনা করিয়া তথাকথিত দেশসেবা করিতেছিলাম তখন বাণীর বরপুত্র রসায়নের অধ্যাপনা ও গবেষণা ত্যাগ না করিয়াও খুলনার দুর্ভিক্ষ ও উত্তর-বঙ্গ-প্লাবনের ন্যায় মহাসঙ্কটে বৈজ্ঞানিক মহাবিদ্যালয়েই সংকট-গ্রাণ সমিতি গঠন করিয়া আতের সেবায় ও ক্ষুধিতের অন্নদানের ব্যবস্থায় আত্মনিয়োগ করিয়াছিলেন। এই ‘Life outside test-tubes’ এর জন্যই তিনি ছিলেন অনন্যসাধারণ দেশনায়ক।

রসায়ন শাস্ত্রের অধ্যাপনা ও গবেষণা তাঁহার জীবনের এই মহারতের সাধনাস্থল যেমন ছিল কলিকাতা, তেমনই তাঁহার পৈতৃক বাসভূমি ও যশোর-খুলনার গ্রামাঞ্চল ছিল তাঁহার অবকাশের দিনের পরিচরমা-ক্ষেত্র। গ্রামাঞ্চলের আকাশ-বাতাস, নদ-নদীর আকর্ষণ প্রতি ছুটিতেই তাঁহাকে সহরছাড়া করিত। আর মধুমতী হইতে যমুনা-ইচ্ছামতী পর্যন্ত, রাড়ুলী-কাটিপাড়া, বাগেরহাট হইতে টাকী, শ্রীপুর, সৈদপুর পর্যন্ত নদীপথে পরিভ্রমণ করিয়া, গ্রাম হইতে গ্রামান্তরের আতিথ্যস্বীকার করিয়া পল্লীজীবনের সুখ-দুঃখের অভাব অভিযোগের, আশা-আকাঙ্ক্ষার সন্ধান লইয়া ফেরা ছিল তাঁহার অবকাশের দিনের কর্মসূচী। বিলাতী সভ্যতা ও বিলাতী পণ্যের প্রসার যে পল্লীগ্রামের অন্নহীনতার কারণ ইহা ছিল তাঁহার স্থির সিদ্ধান্ত এবং সেইজন্য বিলাতী পণ্যবর্জন, কুটীর শিল্পের পত্তন, চরখার ও তাঁতের কাজের প্রসার ছিল পল্লীসমাজে তাঁহার প্রচারের বাণী। তরুণদের অকারণে সহরমুখী হইতে না দিবার জন্য মফঃস্বলে শিক্ষা-কেন্দ্র ও বিদ্যালয় প্রতিষ্ঠার তিনি ছিলেন পরম পক্ষপাতী। ১৯৩৭ সালে নিজপ্রয়োজনে খুলনা জেলার পূর্ব প্রান্তে ও বরিশালের পিরোজপুর মহকুমার দক্ষিণভাগে আমাকে যাইতে হয় এবং আত্মীয়দের আহ্বানে বাগেরহাটের পথে আমাকে ফিরিতে হয়। বাগেরহাট পৌঁছিলে বাগেরহাট কলেজের তদানীন্তন অধ্যক্ষ মহাশয়ের আমন্ত্রণে তখনকার নবপ্রতিষ্ঠিত বাগেরহাট কলেজ দেখিতে যাই। বাগেরহাট কলেজ, কলেজের ছাত্রাবাস, কলেজের প্রতিষ্ঠাভূমি, বিস্তৃত প্রাঙ্গণ, অনেকগুলি খেলার মাঠ, কলেজের নিজস্ব কৃষিক্ষেত্র প্রভৃতি দেখিয়া বিশেষ আনন্দলাভ করি। কলিকাতায় ফিরিয়া কিছুদিন পরে আচার্য দেবের সহিত দেখা করিতে যাই, এবং তাঁহার সহিত যে কথলাপ হয় তাহার কিছুটা এই:—

ওহে! কামাখ্যার পত্রে জান্লাম তুমি নাকি বাগেরহাট-কলেজ দেখতে গিয়েছিলে?

—হ্যাঁ স্যার, প্রিন্সিপ্যাল কামাখ্যাবাবু ধরে নিয়ে গিয়েছিলেন।

কলেজ কেমন দেখলে?

—কলেজ ত ভালই হয়েছে। পরিবেশ ভালই, কলেজের সংলগ্ন অনেক জমি রয়েছে, খেলার মাঠ, চাষের জমি, ভালই দেখ্লাম।

ছাত্র কেমন হয়েছে দেখলে?

—ছাত্রের সংখ্যা বেশী নয়। প্রতি ক্লাসেই বেশ কিছু সীট খালি।

তুমি জান ও অঞ্চলে দুই তিন মাইল অন্তর হাই স্কুল আছে?

—আজ্ঞে হ্যাঁ।

তবুও কলেজে ছাত্র কম কেন?

—তা ঠিক বুদ্ধিতে পারলাম না।

এডুকেশন সম্বন্ধে কাগজে লেখালেখি কর, বইও লেখ, আর এটা বুদ্ধিতে পারলে না?

—আমি হ্যাঁ না কোন উত্তর দিতে ইতস্ততঃ করায় বললেন:

বলি ওখানে কি মোহনবাগানের ম্যাচ, সিনেমা, ডাইং ক্রিনিং এসব কিছু আছে? ওখানে কি লেখাপড়া হতে পারে? তাই কলকাতায় বড় বড় কলেজে এসে ভর্তি হতে হবে আর তেতলা হস্টেলে থাকতে হবে। এই অভ্যাস হলে সে ছেলে কি আর কখনও গ্রামে ফিরে যাবে? না, গ্রামমুখো হবে?

—উচ্চহাস্য সংবরণ করিয়া আর কোন উত্তর না দিয়া আমি স্মিতমুখে শুনিয়া গেলাম।

কথাগুলি আজও ভুলি নাই—তাই লিখিলাম। আচার্যদেবের রসায়ন শাস্ত্রে গভীর পান্ডিত্য, তাঁহার উচ্চাঙ্গ এবং বহুল গবেষণার বৈশিষ্ট্য ও গুরুত্ব সম্বন্ধে কিছু বলিতে আমি অনধিকারী ও অক্ষম। তাঁহার গবেষণাধারার উত্তরাধিকারী সুপান্ডিত কৃতী ও কীর্তিমান ছাত্রেরা সে পরিচয় দিবেন।

আচার্য প্রফুল্লচন্দ্র

শ্রীশান্তা দেবী

বাংলা ও ভারতের ইতিহাসে কোন কোন বৎসর বা কোন কোন তারিখ বিশেষ স্মরণীয়। কেবল মাত্র একটি ঘটনার জন্য নয়, এগুলা যেন বহু বিশেষ ঘটনার জন্য চিহ্নিত ছিল। ইংরাজী ১৮৬১ খৃষ্টাব্দ এইরূপ একটি বৎসর। এই বৎসরে বরীন্দ্রনাথ, আচার্য প্রফুল্লচন্দ্র, ডক্টর নীলরতন সরকার, মতিলাল নৈহরু প্রভৃতি সুবিখ্যাত ব্যক্তির জন্ম হয়। বাংলা দেশের শিক্ষা, শিল্প, বিজ্ঞান এবং অর্থনৈতিক উন্নতি প্রভৃতিতে বর্তমানে যে সকল সংস্কার সাধিত হয়েছে তার জন্য বাঙালী আচার্য প্রফুল্লচন্দ্রের কাছে বহুল পরিমাণে ঋণী। তাঁর অনেক কর্মক্ষেত্রে প্রথমে তিনি একাই ঋণ দিয়েছিলেন। কিন্তু দৈবক্রমে তাঁর বন্ধুভাগ্য ভাল ছিল, তাই দেশের দিকপালদের এবং অনুগত ছাত্রদের সাহায্য তিনি পেয়েছিলেন এবং বড় বড় কাজ সুচারুরূপে সম্পন্ন করে গিয়েছিলেন।

১৮৬১ খৃষ্টাব্দে ২রা আগস্ট আচার্য প্রফুল্লচন্দ্র যশোর জেলায় তাঁর পৈতৃক গ্রামে জন্মগ্রহণ করেন। তাঁর জন্মকালে তাঁর পিতা অবস্থাপন্ন তালুকদার ছিলেন। ইংরাজী ও পারস্য সাহিত্যের প্রতি তাঁর গভীর অনুরাগ ছিল। পিতার নিকট হইতে প্রফুল্লচন্দ্র সাহিত্যপ্রীতি উত্তরাধিকার সূত্রে পান। প্রফুল্লচন্দ্র শিশুকালে গ্রামের স্কুলে পাঠারম্ভ করেন। তাঁর নয় বৎসর বয়সে তাঁর পিতামাতা ছেলেদের কলিকাতায় উচ্চশিক্ষা দেবেন বলে সপ্তেগ করে নিয়ে আসেন। প্রথমে কিছুদিন হেয়ার স্কুলে পড়ার পর তিনি এ্যালবার্ট স্কুলে ভর্তি হন। এই স্কুলটি ছিল কেশবচন্দ্রের প্রতিষ্ঠিত। সেকালের স্কুলের শিক্ষাপদ্ধতির প্রতি অনেকটা বরীন্দ্রনাথের মতই প্রফুল্লচন্দ্র বীতস্পৃহ ছিলেন। সেখানে ছাত্র ও শিক্ষকের কোন সম্পর্ক গড়ে উঠত না। কেহ কেহ এমন অগ্নিমূর্তি ছিলেন যে ছাত্রেরা ভয়ে কাঁপত। এইরকম একজনকে ছেলেরা বলত “বাঘাচণ্ডী”। বাল্যকালে অসুস্থতার জন্য কিছুদিন হেয়ার স্কুল ছেড়ে দিয়ে তিনি বাড়ীতেই পড়াশোনা করতেন। তারপর ভর্তি হন এ্যালবার্ট স্কুলে। এবং স্কুলের ব্রাহ্ম শিক্ষকেরা সকলেই ছিলেন ভদ্র, শিষ্ট ও শান্ত। বাল্যেই মানুষের জীবনের ছাঁচটা অনেকাংশে তৈরী হয়ে যায়। উদার ভাবাপন্ন ও সাহিত্যানুরাগী পিতার সন্তান প্রফুল্লচন্দ্র আদিত্য চট্টোপাধ্যায় প্রভৃতি উন্নত প্রকৃতির শিক্ষকদের হাতে পড়ে উদার ও শিক্ষানুরাগী হয়েই জীবন সূরু করেন। বাল্যে যে সময় তিনি অসুস্থ ছিলেন সে সময় রোগ তাঁকে শৃঙ্খল দৃষ্টি দেয়নি, তাঁকে অবসর দিয়েছিল জ্ঞানসম্ভারে নিজেকে ঐশ্বর্যশালী করে তুলতে। সেই সময় বড় ভাই-এর লাইব্রেরীর সাহায্যে নিজচেষ্টিয়া তিনি ল্যাটিন ও পারস্য ভাষা শেখেন এবং রাজেন্দ্রলাল মিত্রের বিবিধার্থ-সংগ্রহ, বস্কিমের বঙ্গদর্শন, যোগেন্দ্রনাথ বিদ্যাভূষণের আর্যদর্শন প্রভৃতি এবং অন্যান্যদের Julius Caesar, Merchant of Venice, Hamlet ইত্যাদি সেক্সপীয়ারের নাটকাদি ঘরে বসে পড়ে তিনি ১৩ বৎসর বয়সেই বহু জ্ঞান অর্জন করেন। ল্যাটিন শিক্ষা তাঁর বৈজ্ঞানিক কাজে পরে সহায় হয়।

প্রফুল্লচন্দ্র শৃঙ্খল ঘরে বসে বই পড়তেন না। বৎসরে বার দুই গ্রামে যেতেন। তার ফলে সাধারণ চাষাভূষা মানুষদের সপ্তেগ তাঁর আবাল্য যোগ ছিল। এন্ট্রাস পরীক্ষা পাশ করার পর তিনি মেট্রোপলিটান কলেজে এফ. এ. পড়েন, সেখানে সুরেন্দ্রনাথ বন্দ্যোপাধ্যায়ের নিকট ইংরাজী পড়ার সৌভাগ্য হয়।

২১ বৎসর বয়সে তিনি পিতামাতাকে না জানিয়ে গিলখাইস্ট বস্তির জন্য গোপনে চেষ্টা করেন। চিরকালই বিজ্ঞান শিক্ষা ও ফলিত বিজ্ঞানে দেশের কাজ করার ইচ্ছা তাঁর

ছিল। তাই তিনি বিশ্ববিদ্যালয়ে সেই ভাবেই পাঠনবিষয় নির্বাচন করতেন। হঠাৎ একদিন গিলখাইন্ট বৃত্তিলাভ হয়ে গেল। দাদার হাতে মাকে খবর দিয়ে উৎসাহী যুবক বিলাতে যাত্রা স্থির করলেন। মাও খুব সেকেলে ছিলেন না। ছেলের জাত যাবার ভয় তাঁর ছিল না। তিনি পুত্রকে বাধা দিলেন না।

এক সময় অবস্থা ভাল থাকলেও তাঁর পৈতৃক তালুকমূলুক ক্রমে নষ্ট হতে থাকে। নিজের পায়ের উপর দাঁড়িয়েই এখন থেকে তাঁকে চলতে হবে। প্রসন্ন কুমার রায়ের ভ্রাতা হোমিওপ্যাথ স্ৱাকানাথ রায়ের সঙ্গে এক যাত্রায় পাড়ি দিয়ে লন্ডনে পৌঁছার পর তিনি এডিনবরায় পড়া ঠিক করলেন। Alexander Crum Brown ছিলেন তাঁর কেমিস্ট্রির (রসায়নবিজ্ঞানের) শিক্ষক। যদিও পড়াশুনার প্রফুল্লচন্দ্র নিমগ্ন থাকতেন, তবুও অনাদিকে যে তাঁর দৃষ্টি ছিল না এমন বলা যায় না। এই সময় তাঁদের বিশ্ব-বিদ্যালয় থেকে ছাত্রদের “সিপাহী বিদ্রোহের আগে ও পরে ভারতবর্ষ” বিষয়ে একটি প্রবন্ধ লিখতে বলা হয়। প্রফুল্লচন্দ্র মেধাবী ছাত্র, তাতে দেশহিতৈষী। সুতরাং স্বভাবতঃই তাঁর এই প্রবন্ধ-প্রতিযোগিতায় যোগ দিবার ইচ্ছা হল। তিনি এই উদ্দেশ্যে সেখানকার প্রায় এক লাইব্রেরী বই পড়ে ফেললেন। প্রবন্ধ-প্রতিযোগিতায় ফল যখন বেরোল তখন তিনি প্রাইজ অবশ্য পেলেন না। কিন্তু তাঁর প্রবন্ধ শ্রেষ্ঠ দৃষ্টির একটি বলে ঘোষিত হয়। প্রবন্ধটি নিজে ছাপাতে চান বলে ফিরিয়ে এনে দেখলেন “বৃটিশ শাসন বিষয়ে এই লেখক তাঁর কটুক্তি করেছেন” এই মন্তব্য তার গায়ে পরীক্ষক লিখে রেখে দিয়েছেন। প্রবন্ধটি ছাপিয়ে তিনি নানা প্রসিদ্ধ লোককে বিতরণ করলেন। উচ্চপ্রশংসা পেলেন—রয়টারে পর্যন্ত খবর চলে গেল। যুবক একদিনেই বেশ খানিকটা প্রসিদ্ধি পেয়ে গেলেন। তখনকার দিনে তাঁর ধারণা ছিল যে সত্য কথা বলে অনুরোধ করলে স্বাধীনতা ভিক্ষা পাওয়া যায়। কিন্তু সে ধারণা তাঁর শীঘ্রই ভেঙে গেল। বৃটিশ-ভারতে দেশের প্রতি সুবিচার হবে না এবং তাঁরমত লোকও চিরকাল বৃটিশ বিচারের অবজ্ঞা বহন করে থাকবেন তা তিনি শীঘ্রই বুঝতে পারলেন। যে লেখায় তাঁর প্রথম খ্যাতি ছড়িয়ে পড়ল সেই লেখাই তাঁর ভাগ্য খানিকটা নিয়ন্ত্রিত করেছিল। দেশের ভাগ্যচিন্তা ছেড়ে তখনকার মত তিনি আবার বিজ্ঞানচর্চায় ডুব দিলেন। সে বৎসরে তিনি একাই ডক্টরেট প্রার্থী ছিলেন এবং পেলেনও। তাঁর আরও কিছুদিন বিদেশে থাকার প্রয়োজন ছিল। তিনি “গিলখাইন্ট এন্ডোমেন্ট” থেকে আরও ৫০ পাউন্ড পেলেন এবং সে সময়ে “হোপ প্রাইজ” বৃত্তিও পেলেন। সেইযুগে ওদেশেও ডক্টরেটের এত ছড়াছড়ি ছিল না। সুতরাং রায়মহাশয় বিদেশেও একটা প্রতিষ্ঠা পেলেন। তিনি সেখানেই ইউনিভার্সিটি কেমিক্যাল সোসাইটির ভাইস প্রেসিডেন্ট নির্বাচিত হলেন। প্রেসিডেন্ট অনুপস্থিত থাকলে রায়কেই মিটিংএ সভাপতিত্ব করতে হত। দেশে ফিরবার সময় হলে ডাঃ রায় চেষ্টা করেছিলেন দেশে একটা ভাল কাজ যাতে পান; কিন্তু ভারত-সেক্রেটারী তখন ভারতীয় ছেলেদের শিক্ষা বিভাগের উচ্চ কাজে সহজে ঢুকতে দিতেন না। প্রফুল্লচন্দ্র মহামহারথীদের প্রশংসাপত্র নিয়েও কিছু সুবিধা করতে পারলেন না। অগত্যা কাজ না নিয়েই দেশে ফিরে আসবেন ঠিক করলেন। হাতে টাকা ছিল না যে বিদেশে বসে থাকেন। গিলখাইন্ট ফন্ড পথ খরচা ৫০ পাউন্ড দিলেন। ১৮৮৮ সালের আগস্ট মাসে তিনি দেশে ফিরলেন। জাহাজের হেড পার্সারের কাছে ধার করে ৮ টাকা নিয়ে তিনি জাহাজ থেকে নেমে এক বন্ধুর বাড়ী চললেন ধূতি চাদর ধার করতে।

ধূতি পরে খুলনার নতুন ট্রেন ধরে একেবারে গ্রামে মায়ের কাছে উপস্থিত। মা চোখের জলে ভেসে জানালেন “তোমার ছোট বোনটি নেই।”

তখন প্রেসিডেন্সী কলেজ ছাড়া আর কোন কলেজে কেমিস্ট্রির কাজ হাতে কলমে করবার ব্যবস্থা ছিল না। এই যুগে ডক্টর রায় দেশে ফিরে প্রায় এক বছর বেকার বসে রইলেন। তাঁর মত বৈজ্ঞানিককে কাজে লাগাবার কোন ব্যবস্থা হল না। এই সময় জগদীশ-

চন্দ্র বসু ও তৎপন্নীর আতিথ্যে তাঁর দিন কাটত। জগদীশচন্দ্র অনেক চেষ্টায় শিক্ষাবিভাগের উচ্চ গ্রেডে সবে ঢুকেছেন। কিন্তু তাঁকেও ঐ অংশ বেতন পাবেন এই সর্তে কাজ দেওয়া হয়। অবশেষে প্রেসিডেন্সী কলেজে কেমিস্ট্রির একটি মিতীয় চেয়ার হল এবং প্রফুল্লচন্দ্র ২৫০ টাকা বেতনে সাময়িক সহকারী প্রফেসার নিযুক্ত হলেন।

অনেক দিন স্বাধীন দেশে থেকে তাঁর রক্ত তখনও গরম ছিল। তিনি দার্জিলিং গিয়ে ক্রফ্ট-সাহেবকে সোজা বললেন যে তাঁর প্রতি অবিচার করা হয়েছে। তাঁর মত বৈজ্ঞানিককে বিদেশ থেকে আমদানী করতে হলে তো তৎক্ষণাৎ তাঁকে “ইম্পিরিয়াল” চাকরির পর্যায়ে নিযুক্ত করতে হত। ক্রফ্ট সবই বুঝতেন কিন্তু তিনিও তো সরকারের চাকর, তাই খুব রাগ দেখালেন, যদিও পরে জানা গেল তলে তলে ক্রফ্ট তাঁর উন্নতির চেষ্টা করেছিলেন। ক্রফ্ট ছিলেন শিক্ষাবিভাগের ডিরেক্টর। ব্রাহ্মবন্ধুদের মধ্যে থেকে থেকে প্রফুল্লচন্দ্র এখন পুরাপুরি ব্রাহ্ম। তিনি দেশের সামাজিক উন্নতির কাজে লেগে গেলেন, ব্রাহ্মবন্ধুসভা গড়ে তুলবার ভার নিলেন। ব্রাহ্মসমাজের কার্যনির্বাহক সভার সভ্য হলেন। এইযুগ থেকেই তিনি হেরম্বচন্দ্র মৈত্র, নীলরতন সরকার, রামানন্দ চট্টোপাধ্যায় প্রভৃতির বন্ধু। ১৮৯০ সাল থেকে ৯১নং আপার সাকুলার রোডে তিনি বাড়ী ভাড়া করেন। এই বাড়ী প্রফুল্লচন্দ্রের নামের সঙ্গে চিরকাল যুক্ত থাকবে। পঁচিশ বৎসর এই বাড়ীতে তিনি বাস করেন এবং বড় বড় কাজ করেন। এই সময়ে তাঁর মনে আসে আমাদের বাংলায় গাছ-গাছড়া প্রভৃতি কত সম্পদ, অথচ আমরা বাঙালীরা তার থেকে দেশকে সমৃদ্ধ করবার কোন চেষ্টা করি না। শীতের দেশে মানুষ কত পয়সা খরচ করে এই সব জিনিষ সংগ্রহ করতো। এত সম্পদ এবং এত “বেকার” শিক্ষিত যুবক যে দেশে, সে দেশে চাকরী করা ছাড়া মানুষের চিন্তা নাই। প্রফুল্লচন্দ্র ঠিক করলেন এর জন্য তাঁকে প্রাণপণ সাধনা করতে হবে। দেশকে নতুনপথে চালাতে হবে। চাকরীজীবী বাঙালীর শূন্যে শূন্যে সেলুপীয়ার পড়া এবং অশিক্ষিত মাড়োয়ারীদের ব্যবসায় সমৃদ্ধির চিন্তা এই সময় থেকেই তাঁর মনকে আলোড়িত করতে থাকে। ক্ষুধার্ত বাঙালীর কি করে অন্ন জোটে এটা দেশকে দেখাতেই হবে। প্রকৃতি পর্যবেক্ষণের সাহায্যে মানুষের শিশুকাল থেকে গাছগাছড়া ও জীবজন্তুর জীবনধারা লক্ষ্য করতে শিক্ষা করা উচিত। তবে সে চক্ষুকর্ণকে ব্যবহার করতে শিখবে। এই উদ্দেশ্যেই তিনি ও তাঁর কয়েকজন বন্ধু নেচার ক্লাব (Nature Club) প্রতিষ্ঠা করেন, এবং প্রফুল্লচন্দ্র বাংলায় প্রাণি-তত্ত্ব প্রভৃতি বিষয়ে বই লেখেন। নেচার ক্লাব-এর সভ্য ছিলেন প্রফুল্লচন্দ্র, ডক্টর নীলরতন সরকার, ডক্টর প্রাণকৃষ্ণ আচার্য, প্রাণি-তত্ত্ববিদ রামব্রহ্ম সান্যাল, অধ্যাপক হেরম্বচন্দ্র মৈত্র, অধ্যাপক রামানন্দ চট্টোপাধ্যায়, অধ্যাপক সুবোধচন্দ্র মহলানবীশ, অধ্যাপক জগদীশচন্দ্র বসু এবং ডক্টর বিপিন বিহারী সরকার। এই ক্লাবে প্রথম বক্তৃতা দেন প্রফুল্লচন্দ্র। ক্লাবে অনেক সময় রাত ১২টা পর্যন্ত কাজ চলত। কলেজে-পড়া অন্নহীন বাঙালী ছেলেদের ভবিষ্যৎচিন্তা করেই তিনি প্রধানতঃ বেঙ্গল কেমিক্যাল ওয়ার্কসের গোড়া পত্তন করেন। তখন ছেলেরা সহজে বিজ্ঞান পড়ত না। যদিও বা পড়ত তাও কেবল কম পরিগ্রহে M. A. (এম্ এ) ডিগ্রী পাওয়ার জন্য। আসল উদ্দেশ্য ছিল আইন পরীক্ষা দিয়ে ম্যুন্সেফ হওয়া এবং M. A., B. L. (এম্ এ, বি এল্) উপাধি লেখা।

দু’ একজন বন্ধুবান্ধবের সাহায্যে ঔষধ, সিরাপ প্রভৃতি তৈয়ারী তিনি শুরু করলেন। সে সময় বিক্রিওয়ালাদের কাছ থেকে পুরানো বোতল কিনে কাজ চালাতেন। গোড়াতেই তিনি “বেঙ্গল কেমিক্যাল এন্ড ফার্মাসিউটিক্যাল ওয়ার্কস” নাম পছন্দ করেন। কাঁচা মাল সংগ্রহ করা এবং তৈরী জিনিষ বাজারে চালানোর জন্য দালাল নিযুক্ত হ’ল। কিন্তু ব্যবসাদাররা “বিলাতী” মাল ছেড়ে দিশি মাল কিনতে রাজী নয়। লোকে যে চায়না,—দেশী মালের চেহারা ক্রমেই যথাসম্ভব সুন্দর করার চেষ্টাও হ’ল এবং ধীরে ধীরে দোকানে তা একটু স্থান পেল। এই সময় সহায় হলেন তাঁর অন্য কয়েকটি বন্ধুর সঙ্গে ডাক্তার বন্ধুরা। বন্ধু অম্ল্যচরণ ডাক্তারদের ধরতে লাগলেন। ফলে রাধাগোবিন্দ কর, নীলরতন সরকার,

সুরেশপ্রসাদ সর্বাধিকারী প্রভৃতি দেশহিতৈষী চিকিৎসকেরা দেশী ঔষধ ব্যবস্থা করতে লাগলেন। বি. সি. পি. ডব্লিউ. মার্কা ঔষধ বাজারে চলতে সুরু হ'ল। বহু পরিশ্রম এবং বহু স্বার্থত্যাগী বন্ধুর সহায়তায় বি. সি. পি. ডব্লিউ. দাঁড়িয়ে উঠল। প্রফুল্লচন্দ্র দেশকে একটা নতুন পথ দেখালেন, নতুন মন্ত্র দিলেন। ৮।৯ বৎসরেই লিমিটেড কোম্পানী গড়ে উঠল দুলক্ষ টাকা মূলধনের। তার কয় বৎসর পরেই ম্যানেজার রূপে নিযুক্ত হলেন রাজশেখর বসু মহাশয়। এই সব ৫৫।৬০ বৎসরের পূর্বেকার কথা।

প্রফুল্লচন্দ্র দেশভক্ত; সুতরাং বড় বড় দেশপ্রেমিকের সঙ্গে তাঁর ঘনিষ্ঠ যোগ থাকা স্বাভাবিক। অন্য দিকেও দেশবিদেশে তাঁর প্রসিদ্ধি ছড়িয়ে গেল। দেশে যখন ২৫০ টাকা বেতনে তিনি সহকারী অধ্যাপক তখনই ১৮৯৮ খৃষ্টাব্দে “বার্থেলো” (Berthelot) তাঁকে “Journal des Savants” এর পরে Savant বলে উল্লেখ করেছেন। দেশীয় সরকার উপেক্ষা করলেও দেশের গুণীজন তাঁকে ক্ষণজন্মা বলেই বুঝেছিলেন। ১৯০১ খৃষ্টাব্দে গোথলে যখন কলিকাতায় আসেন তখনই তিনি তাঁর সঙ্গে গভীর বন্ধুত্বসূত্রে আবদ্ধ হন। প্রফুল্লচন্দ্র ১৯১২ খৃষ্টাব্দে যখন তৃতীয় বার ইংলন্ডে যান দৈবক্রমে গোথলে ছিলেন তাঁর সহযাত্রী। এই যোগাযোগে উভয়েই আনন্দ ও মানসিক সম্পদ লাভ করেন।

গোথলের সূত্রেই ইতিপূর্বে ১৯০১ খৃষ্টাব্দে গান্ধীজীর সঙ্গে তাঁর যোগ হয়। এই তিনটি মানুষই আত্মত্যাগ ও দেশভক্তির জন্য প্রসিদ্ধ। গান্ধীজীর দেশবিদেশব্যাপী নাম হয়েছে। সে তুলনায় প্রফুল্লচন্দ্রের কিছুই হয়নি। কিন্তু তিনি স্বার্থত্যাগ ও দেশপ্রেমে কারোর চেয়ে কম ছিলেন না। গান্ধীজীর সঙ্গে যখন আচার্যদেবের পরিচয় হয় তার ২৫ বৎসর পরেও গান্ধীজী তাঁর আত্মজীবনীতে প্রফুল্লচন্দ্রের কথাবার্তার খুঁটিনাটি অনেক কিছু লিখে যান। প্রফুল্লচন্দ্র কলিকাতায় এ্যালবার্ট হলে গান্ধীজীর প্রথম বক্তৃতার (১৯০১) ব্যবস্থা করেন এবং সেখানে দক্ষিণ আফ্রিকায় ভারতীয়দের দুঃখদর্দশার কথা বলা হয়। “প্রবাসী” ও “মডার্ন রিভিউ”তে এই বিষয়ে খবর ছাপা হয়। প্রফুল্লচন্দ্রই গান্ধীজীর প্রথম ভারতীয় বক্তৃতার উদ্যোগী এবং তার বিবরণী ছাপার ব্যবস্থা করেন। বাঙালী ছেলের আলস্য, নতুন কাজে ঝাঁপ দিতে ভয়, বাধা পেলেই সরে দাঁড়ানো এই দোষগুলি তিনি মিতীয়বার ইউরোপ ঘুরে আসার পর যেন আরো গভীরভাবে ভাবতে লাগলেন। এই সময় বংগের অগ্গ্রেদে বাংলার যেন নতুন শক্তির সঞ্চার হ'ল। ডক্টর রায় সরকারী চাকরী করেন। তিনি রাজনীতিতে যোগ দিতে পারেন না। কিন্তু তিনি দেখলেন দেশের যুবকদের মস্তিষ্কে শূন্যবৃত্তির উদয় কিছু কিছু হচ্ছে। বিজ্ঞানের দিকে ছেলেদের ঝোঁক বাড়ছে। প্রফুল্লচন্দ্রের মানুসগড়ার কাজ অন্তরাল থেকে চলতে লাগল। ১৯০৮-১৯০৯ খৃষ্টাব্দ থেকে আচার্যের শ্রেষ্ঠ ছাত্রেরা তাঁর হাতে এসে পড়তে লাগল। তিনি রসিকলাল দত্ত, নীলরতন ধর, জ্ঞানচন্দ্র ঘোষ, জ্ঞানেন্দ্রনাথ মুখোপাধ্যায়, মানিকলাল দে, সত্যেন্দ্রনাথ বসু, পলিনবিহারী সরকার মেঘনাদ সাহা প্রভৃতিকে এই সময় পান। এরা যেমন ছিলেন গুরু প্রফুল্লচন্দ্রের ভক্ত, তেমনই ছিলেন পরস্পরের সঙ্গে একাত্ম। গুরুশিষ্যের রাসায়নিক মিশ্রণে অপূর্ব গোষ্ঠী রচিত হ'ল। গুরু শিষ্যদের বাসায় যখন তখন যেতেন। শিষ্যেরা তাঁর গড়ের মাঠের সান্ধ্যভ্রমণেরও নিত্যসাথী হয়ে উঠলেন এই সময় কত ছাত্রই চন্দ্রক আকর্ষণে যে তাঁর দিকে আকৃষ্ট হলেন তার ইয়ত্তা নাই। যারা বিজ্ঞান কোন দিনই পড়তেন না তারাও গিয়ে হাজির হতেন তীর্থযাত্রীর মত প্রফুল্লচন্দ্রের আশে পাশে। সকলের সাথেই তিনি প্রাণখুলে কথা বলতেন। তাদের স্বাস্থ্য ঘৃষি মেরে পরীক্ষা করে দেখতেন, তাদের উচ্চাকাঙ্ক্ষায় উৎসাহ করে তুলতেন। তিনি ছিলেন ছাত্রদের পরম সুহৃদ। শীঘ্রই আরও বহু ছাত্রের ভাগ্য তাঁর হাতে গঠিত হতে চলল।

১৯১২ খৃষ্টাব্দে তারকনাথ পালিত মহাশয়ের বিরাট দানের ফলে বাংলার বিজ্ঞান জগতে এক নতুন ঘটনা ঘটল।

প্রফুল্লচন্দ্র একদিন বিশ্ববিদ্যালয়ের সিনেটে বলেছিলেন যে বিজ্ঞানের

কোন চেয়ার নেই বড় দঃখের কথা। সেই কথা উল্লেখ করে আশুবাবু ১৯১২ খৃষ্টাব্দে প্রফুল্লচন্দ্রকে কেম্ব্রিজের প্রথম অধ্যাপক হতে আহ্বান করলেন। প্রফুল্লচন্দ্র বললেন “এতদিনে আমার স্বপ্ন সফল হল।” তিনি ইংলণ্ডে ছিলেন। ফিরে এসে কিছুদিন আগের মত প্রেসিডেন্সী কলেজেই কাজ করে প্রায় ৫৫ বৎসর বয়সে অবসর গ্রহণ করে নতুন সায়েন্স কলেজে যোগ দিলেন। দশবৎসরের মধ্যেই এই কলেজ যে-কোন দেশের বড় কলেজের মত হয়ে উঠল।

দেশের নানা হিতচেষ্টায় যার মন ছিল, তিনি কিন্তু শুধু সায়েন্স কলেজেই ডুবে রইলেন না। তিনি খন্ডর প্রচার, অনন্যত জাতির উন্নতি বিধান, দুর্ভিক্ষ ও বন্যা নিবারণে সংকট-দ্রাণ সমিতি গঠন ও ছাত্রপালন প্রভৃতি নানা কাজে আকণ্ঠ ডুবে রইলেন।

ক্ষীণদেহ কিন্তু বজ্রবীৰ্য এই শক্তিশালী পুরুষের বহুমুখী দেশসেবা দেশের লোকের কাছে বিস্ময় ও ভক্তির উদ্বেক করতে লাগল। বাংলা ১৩০৫ সালে যখন দেশবাসী তাঁর এত মর্যাদা দেয় নি, কিন্তু তাঁর বন্ধুগোষ্ঠী তাঁকে অসামান্য পুরুষ বলে বুঝেছিলেন। তখনই সেকালের “প্রদীপ”পত্রে রামানন্দ চট্টোপাধ্যায় এর জীবনী ও ছবি প্রকাশ করেন। জগদীশ, আনন্দমোহন, প্রফুল্লচন্দ্র ও যোশ্ধা প্যারীমোহন এই কয়জনের জীবনী প্রকাশিত হয়েছিল। ইহা প্রদীপেরই নতুন প্রবর্তনা, কারণ মানুষের জীবদ্দশাতেই তখন কাহারও জীবনী প্রকাশ হ’তনা।

“প্রবাসী” পত্রিকায় (কলিকাতা আসার পর) প্রফুল্লচন্দ্র “বাংলায় মস্তিস্কের অপব্যবহার” বিষয়ে এক প্রবন্ধ লিখেছিলেন। বাংলায় কেবল চাকরী খোঁজে আর আইন পড়ে অথচ দেশের সম্পদ অন্যে নিয়ে যায়। বাংলার এ মর্খতা তিনি সহ্য করতে পারতেন না। বাংলার তথা ভারতবাসীর কার্যকরী শক্তি, শিল্পসৃষ্টির ক্ষমতা এবং ব্যবসায়-বাণিজ্যে উৎসাহ জাগাতে তাঁর মত চেষ্টা আর কেহ করেন নি।

প্রফুল্লচন্দ্র রাজনৈতিক আন্দোলনে সোজাসৃজি যোগ দেন নি; কিন্তু বহুক্ষেত্রে এই দেশপ্রেমিককে রাজনৈতিক মঞ্চেও টেনে নিয়ে যাওয়া হত। তিনি রহস্য করে বলেছিলেন দশ মিনিটের জন্য আমি কংগ্রেস-প্রেসিডেন্ট হয়েছিলাম। ১৯২৫ সালে মহম্মদ আলি প্রেসিডেন্ট হন। তিনি একদিন নামাজের সময় ডেলিগেটদের সম্মতি নিয়ে সাদরে অভ্যর্থনার মধ্যে প্রফুল্লচন্দ্রকে নিজ আসনে বসিয়ে যান কংগ্রেস মঞ্চে।

১৯১৯ সালে (Rowlatt Act) “রাউলাত আইনের” বিরুদ্ধে টাউন হলে যে সভা হয় চিত্তরঞ্জন দাস সেখানে প্রফুল্লচন্দ্রকে উপস্থিত থাকতে বলেন। আচার্যদেব দর্শক হিসাবেই যান। কিন্তু চিত্তরঞ্জন তাঁকে পাশে বসানোতে দর্শকবৃন্দ আচার্যের কথা শোনবার জন্য ব্যস্ত হয়। লোকে “বন্দে মাতরম” শব্দে এতক্ষণ ধরে তাঁকে যেভাবে সমাদর করে, কিছুক্ষণ তিনি কথা বলতেই পারেন নি। অমৃত বাজার পত্রিকা লেখেন :

“So grave was the danger to our national life that even Dr. P. C. Rāy left his work in the laboratory and joined the voice of protest against the obnoxious Bill”.

১৯২২ সালের বাংলার বন্যার সময় আচার্যদেবকে প্রেসিডেন্ট করে রিলিফ কমিটি গঠিত হয়। সায়েন্স কলেজ হয় কমিটির অফিস। সুভাষ বোস, মেঘনাদ সাহা এবং বহু বিখ্যাত ব্যক্তি হন তাঁর সহায়। এই সময় “Manchester Guardian” এর (ম্যাগেণ্টার গার্ডিয়ানের) বাংলার সংবাদদাতা একটি প্রবন্ধ লেখেন। তাতে আছে যে একজন ইউরোপীয়

বলেছিলেন, “যদি গান্ধী কোন প্রকারে আর দুটি পি. সি. রায় সৃষ্টি করতে পারতেন তবে দেশ এক বৎসরেই স্বরাজ পেয়ে যেত।”

১৯৩২-এর আর এক বন্যার প্রফুল্লচন্দ্র শিষ্যদের নিয়ে সঙ্কট-গ্রান সমিতি গঠন করেন। এই সময় মেঘনাদ সাহা বাংলার বন্যার কারণ বিষয়ে এবং তাহা নিবারণ করার ব্যবস্থা সম্বন্ধে লেখেন। নদীকে নিয়ন্ত্রিত করার উপায় নির্দেশ করেন।

আমাদের বিশ্ববিদ্যালয়সমূহের শিক্ষার উপর আচার্য শেষ জীবনে বিশেষভাবে বীতশ্রু হন। এ যেন গ্র্যাজুয়েট তৈয়ারীর কারখানা, যন্ত্রদানবের মত বছরের পর বছর হাজার হাজার গ্র্যাজুয়েট উৎপাদন করছে এবং তারা ৩০, টাকা, ৪০, টাকা, ৫০, টাকা দরে জীবন বিক্রী করে দিচ্ছে। তাঁর মতে নিজে-তৈরী মানুষেরাই সব চেয়ে শক্তিশালী হয় এবং তারা সম্পদ সৃষ্টি করে দেশকে দারিদ্র্য থেকে মুক্তি দিতে পারে। দেশ এবং বিদেশের বহু দৃষ্টান্ত তিনি স্বদেশের যুবকদের বোঝাতে চেষ্টা করেছেন। তিনি কলেজী শিক্ষা বর্ণিত কার্ণেগী, ফোর্ড, এডিসন, র্যামজে ম্যাকডোনাল্ড প্রভৃতির দৃষ্টান্ত দেন। দৈহিক শ্রমকে হীনচক্ষে দেখা যে দেশের একটা বড় সর্বনাশ করেছে সে কথা তিনি বার বার বলেছেন।

ষাট বৎসর বয়স পার হবার পর তিনি চরখার প্রচলনে উৎসাহী হন। তিনি নিজে কারখানার প্রতিষ্ঠাতা, আবার নিজেই চরখার ভক্ত। একারণে তিনি বলতেন “চরখা যে দরিদ্রের বন্ধু, বেকার স্ত্রীলোকের অন্নদাতা। এতে তাঁর দৃঢ় বিশ্বাস”। স্বয়ং তিনি খন্দর পরিধান করতেন। যিনি বিজ্ঞান কলেজের মাথা তিনিই গ্র্যাজুয়েট সৃষ্টির ঢালাই কারখানার উপর খলহস্ত। যার বিদ্যাচর্চা করার অধিকার আছে সে ছাড়া আর কেহ গ্র্যাজুয়েট হয়, এ তিনি চাইতেন না। মস্তিস্ক না খাটিয়ে শুধু কলম পিষে জীবন কাটানো তিনি সহ্য করতে পারতেন না। এই সব বিষয়ে তিনি প্রবন্ধ লিখেছেন এবং বহু বক্তৃতা দিয়েছেন। দেশের সম্পদবৃদ্ধি করতেই হবে এই ছিল তাঁর মন্ত্র।

সম্পদবৃদ্ধির মানে কিন্তু বিলাসিতা তিনি বুঝতেন না। বরং বলতেন দরিদ্র দেশে বিলাতী বিলাস ঢুকিয়ে অল্পের পয়সা কটি সখে নষ্ট করে দেশের সর্বনাশ করা হচ্ছে। তিনি স্বয়ং ছিলেন খন্দরপরিহিত সন্ন্যাসী। একটি চেক্‌কোট ও হাটুর উপর ধূতি এই ছিল তাঁর পোষাক। ঘরে ধূতির বদলে খন্দরের চেক্‌গামছা বা লুঙ্গী। খাদ্য অতি সামান্য তাও ছাত্র সন্তানদের সঙ্গে ভাগ করে খাওয়া। অথচ দানে ছিলেন অম্বিতীয়। কত টাকা যে বিশ্ববিদ্যালয়ে, ব্রাহ্মসমাজে এবং দরিদ্র ছাত্রদের দান করেছিলেন তার ইয়ত্তা নেই। তাঁর পোষা ছিল অগৃহস্থ।

তাঁর সেই ক্ষীণ দেহ, ও হাস্যময় মুখ আজও চোখের ওপর ভাসে। তাঁর রসবোধ ছিল প্রচুর। আজও মনে পড়ে আমরা দুই বোন যখন নূতন বাংলালেখা শুরু করি তখন প্রফুল্লচন্দ্র আমাদের জন্য একটা প্রকাণ্ড বাগ্‌ভর্তি “বি. সি. পি. ডব্লিউ.” মার্কা সিরাপ উপহার নিয়ে এসেছিলেন। তিনি আশীর্বাদ করতেই এসেছিলেন—কিন্তু মুখে বললেন, “মনে কোরোনা তোমরাই কেবল লিখতে পার—আমিও লিখতে পারি, অনেক লিখিওছি।” প্রবাসীর সহকারী সম্পাদক গল্প শুনে হেসে বললেন, “বৃদ্ধ ব্রহ্মচারী তোমাদের জন্য সরাব নিয়ে এলেন।”

বাস্তবিকই ইংরাজী ও বাংলাতে তিনি অনেক গ্রন্থ ও প্রবন্ধ লিখেছিলেন। তাঁর ধারণা ছিল তিনি সাহিত্যিক হবার জন্য জন্মেছিলেন, কিন্তু দৈবক্রমে রাসায়নিক হয়ে গেলেন। বাল্যকাল থেকে তাঁর অসাধারণ সাহিত্যপ্রীতি ছিল এবং বহু অমর সাহিত্যের রত্ন তাঁর কণ্ঠস্থ ছিল। এডিনবরা যখন তিনি প্রাইজের প্রবন্ধ লিখেছিলেন সে কথা



স্মরণ করে ষাট বৎসর বয়সেও লেখেন “তখন আমার লেখনীর যে অবাধ গতি ছিল আজ তা কোথায়?”

গঙ্গাজলে গঙ্গাপূজার ন্যায় ১৯৩৬ সালে প্রকাশিত তাঁর “অন্নসমস্যায় বাঙ্গালীর পরাজয়” পুস্তক হ’তে কয়েকটি কথা তুলে দিয়ে শেষ করি।

“এখনও বাঙ্গালী জাগো, নচেৎ তোমরা দৈনিক কুলি মজদুরে পরিণত হইবে। এমন কি এইরূপ ভাবে চলিলে ৫০ বৎসরের ভিতর বাঙ্গালীজাতির অস্তিত্ব লুপ্ত হইবে। নিম্নশ্রেণীর লোকস্বারা একটি জাতি গঠন হয়না, কিংবা তাহাতে জাতির নামও প্রতিষ্ঠিত হয়না।”

আচার্য প্রফুল্লচন্দ্র রায় : কাছের মানুষ

শ্রীপ্রভাত চন্দ্র গঙ্গোপাধ্যায়

কোনো মহৎ লোকের সম্বন্ধে আমার মত অতি সাধারণ লোকের স্মৃতিকথা লেখার কি মূল্য থাকতে পারে—বন্ধুজনে এ প্রশ্ন হয়তো করতে পারেন। কয়েকজন অন্ধের সেই হস্তিদর্শনের যে চলতি গল্পটি আছে এটা প্রায় তারই সমগোষ্ঠীয় হয়ে পড়ে। গল্পের সেই অন্ধরা কেউ হাতির পাদস্পর্শ করে বলেছিল : হাতিটি থামের মত দেখতে। কেউবা লেজটা ধরে বললে : সেটা দাঁড়র মতই পদার্থ। কেউবা তার কানটি ছুঁয়ে বুঝল যে, হাতি একটা তালপাতার পাখার মতই জীব। ঠিক তেমনি আমরাও খুব বড় লোকের সম্বন্ধে স্মৃতিচারণ করতে বসে যে যার নিজের নিজের দৃষ্টিভঙ্গী দিয়েই দেখি তাঁদের এক এক রূপ। কিন্তু এই রকম স্মৃতিচারণও বোধ হয় একেবারে নিষ্ফল নয়; কারণ প্রত্যেকেরই ভিন্নদৃষ্টি ও ভিন্নরূপে দেখা খণ্ড খণ্ড ছবি একসঙ্গে গেথে নিয়ে সেই পূর্ণ মানুষের অনেকখানিই হয়তো ভবিষ্যৎ বংশীয়রা কল্পনায় দেখতে পারবেন। সেই আশাতেই আমরা স্মৃতিপট থেকে আজ আচার্য প্রফুল্লচন্দ্র রায়ের মহৎ জীবনের স্মৃতি-কণিকাগুলি গেথে রাখতে সাহসী হলাম।

আমার পিতৃদেব “অবলাবান্ধব” স্মারকানাথ গঙ্গোপাধ্যায় সেকালের রাষ্ট্রনৈতিক ও সমাজকল্যাণ কাজের অন্যতম অগ্রণী পুরুষ ছিলেন। বিশেষ করে নারীজাতির সর্বাঙ্গীন উন্নতি ও শ্রমিকমঙ্গল কাজে তাঁর প্রচেষ্টা তাঁকে সেই সময়ের কল্যাণরতী যুবকদের “হিরো” গড়ে তুলেছিল। তখন তাই আমাদের বাড়ীটি শ্রমিক ও নারীকল্যাণ কাজের একটা কেন্দ্র হয়ে উঠেছিল। তখনকার প্রায় সব রাজনৈতিক ও সমাজ কর্মীরাই আমাদের বাড়ীতে সমবেত হয়ে আলোচনা করে কর্মপন্থা স্থির করতেন। তাঁর সেই যৌবনের লোককল্যাণের এই মহৎ যজ্ঞে আচার্যদেবের আত্মিক যোগ ছিল এবং তখনি তাঁকে আমাদের পরিবারের সঙ্গে দৃঢ়মূলে বাঁধা দেখতে অভ্যস্ত হয়ে উঠলাম।

কুলীন ব্রাহ্মণকন্যাদের উপর তখন যে সমস্ত সামাজিক অন্যায় ও অত্যাচার চলত তার বিরুদ্ধে সংগ্রাম ও বিশেষ করে আসামের চা-কুলীদের প্রায়-কৃতদাসত্ব থেকে মুক্তির যুদ্ধে আমার পিতৃদেবের শরীর একেবারে ভেঙ্গে পড়েছিল; আমার অত্যন্ত বাল্যকালেই তিনি পরলোকে চলে গেলেন। আমার মায়ের উপরে তখন সংসারের গুরুভারের সঙ্গে সঙ্গে আমাদের এতগুলি ভাই বোনদের সমস্ত ভার এসে পড়ল। সেই সময়ে প্রায় রোজই দেখতাম আচার্যদেব—তাঁর কাজের ফাঁকে সময় করে নিয়ে—আমাদের বাড়ীতে এসে মার সংসারের খবরাখবর নিচ্ছেন। বেশ মনে পড়ে সংসার-সংগ্রামে যা হতাশ হয়ে পড়লে, কিম্বা ক্লান্তি বোধ করলে তিনি উৎসাহ দিচ্ছেন, উদ্দীপিত করছেন। তখন তিনি কলকাতার সাধারণ ব্রাহ্মসমাজের কার্যনির্বাহক সমিতির সদস্য ছিলেন; সেইজন্য তাঁকে প্রতি সপ্তাহেই তার অধিবেশনে যোগ দেওয়ার জন্য কর্ণওয়ালিস স্ট্রীটে সমাজ কার্যালয়ে আসতে হত। কাজের শেষে আপার সার্কুলার রোডে তাঁর আবাসস্থলে ফিরে যাবার পথে তিনি গুরুদ-প্রসাদ চৌধুরী লেনে আমাদের বাড়ীতে নিয়মিত ভাবে এসে খবরাখবর নিয়ে—কোন সমস্যা উপস্থিত হলে, সে সম্পর্কে তাঁর মতামত সহৃদয়তার সঙ্গে ব্যক্ত করতেন। সেই সব সমস্যার সমাধান করার জন্য তাঁর আপ্রাণ চেষ্টা তার সঙ্গে যুক্ত হত। সেই বয়সে তাঁর সম্মান প্রতিপত্তির মূল্যায়ণ করবার ক্ষমতা আমাদের হয় নি, আমরা শুধু তাঁকে চিনতে শিখেছিলাম আমাদের পরিবারের অতি ঘনিষ্ঠ বান্ধব বলে ও পরম আত্মীয় বলে। এখন বুঝতে পারি লোকান্তরিত নেতার পরিবারের প্রতি তাঁর কর্তব্যবোধের পরিমাণ।



বিংশ শতকের তৃতীয় দশকে উত্তরবঙ্গের প্রচণ্ড বন্যায় পীড়িত নরনারীর কাতর আর্তি আজীবন লোকহিতরতী এই মানুষটিকে কতদূর ব্যথিত করেছিল এবং তাঁর আহ্বানে দেশে আতর্জ্ঞানে কি অদ্ভুত সাড়া জেগেছিল তা স্বচক্ষে দেখেছি। তাঁর আহ্বানে তখনকার বাঙ্গলার যুবকের দলও সুভাষচন্দ্র বসু এবং মেঘনাদ সাহা প্রভৃতি রাষ্ট্রিক ও সামাজিক নেতৃবর্গের নেতৃত্বে এই সেবাকার্যে এগিয়ে এলেন। সেই সময়ে আমার সৌভাগ্যবশতঃ আমি সেই সেবা-প্রতিষ্ঠানের সহকারী সম্পাদকরূপে গৃহীত হই। প্রত্যহই টাকা পয়সা ও দ্রব্য-সামগ্রী গ্রহণ, রক্ষা ও বিলিব্যবস্থার জন্য আমাকে বিজ্ঞান কলেজে উপস্থিত থাকতে হত। আচার্যদেবের অনুপ্রেরণা এবং সুভাষ ও মেঘনাদ প্রভৃতির আহ্বানে ক্রমশঃই মানুষের মনে দানের প্রেরণা বাড়তে লাগল, আর প্রত্যহই আমাদের কার্যালয়ে দান-সামগ্রীর স্তূপ জমে উঠতে লাগল। টাকাকড়ির হিসাব মেলাতে মেলাতে, প্রাপ্তদ্রব্য সম্ভারের হিসাবনিকাশ ও বিলিব্যবস্থা ঠিক করতে করতে আমাদের যখন ক্লান্তি আসত তখনও আচার্যদেব তাঁর নিজস্ব ক্লান্তিকে উপেক্ষা করে আমাদের সুখ-স্বাচ্ছন্দ্য বিধানে তীক্ষ্ণ দৃষ্টি রাখতেন। তাঁর আপাত রক্ষ্মু চেহারার আড়ালে যে স্নেহের ফল্গুধারাটি প্রবহমান ছিল—এই সময়ে বার বার তার স্পর্শ পেয়ে ধন্য হয়েছি। তিনি এই সময়ে বসে বসে আমাদের নানারকম রসমধুর গল্প শোনাতেন আর তাঁর সময়ে রাখা ভান্ডারে সঞ্চিত মৃদুর মোয়া, পাটালীগুড় ইত্যাদি বের করে আমাদের খেতে দিতেন। তাঁর রান্নার সঙ্গে সঙ্গে আমাদের জন্যও আহাৰ্য তৈরী করিয়ে তিনি সামনে বসিয়ে আমাদের খাওয়াতেন।

এই সেবাকার্য শেষ হয়ে যাবার পর দেখা গেল তিন লক্ষের কিছু বেশী টাকা তখনও হাতে রয়ে গেছে। এই উম্বৃত্ত অর্থ সম্বন্ধে কিছুলোকের মনে একটা ভ্রান্ত ধারণা আছে। অনেকে মনে করেন যে তাঁর একান্ত স্নেহভাজন কর্মী সতীশচন্দ্র দাসগুপ্তের প্রতি অনুরাগবশতঃ এই অর্থ তিনি অন্যায়ভাবে খাদি প্রতিষ্ঠানকে দিয়েছেন। উত্তরবঙ্গের বন্যাপীড়িত জনগণের সেবার জন্যই জনসাধারণ এই অর্থ দান করেছিলেন; তাঁদের সেবাতেই এই উম্বৃত্ত অর্থ ব্যয়িত হওয়া উচিত—তাই এই দানের টাকার অপব্যবহার করবার অভিযোগ—মৃদুমেয় হলেও যখন একশ্রেণীর লোকের মনে উঠেছে—তখন তার নিরসন হওয়া উচিত। তাই আমার জ্ঞানমত সে সম্বন্ধে যতটুকু জানি, তাই লিখছি।

বন্যার প্রকোপ সাময়িকভাবে মোচন হয়ে যাবার পর এই অঞ্চলের সুষ্ঠু পুনর্বাসন ও স্থায়ী গঠনমূলক কাজের জন্য আচার্যদেব একটি ট্রাস্টি বোর্ড গঠন করে এই উম্বৃত্ত অর্থ তাঁদের হাতে অর্পণ করেন। তাঁর অন্যতম বিশ্বস্তকর্মী নীরেন্দ্রনাথ দত্ত কেন্দ্র পরিচালক নির্বাচিত হয়ে সেখানে খন্দ্রবয়ন, কৃষি ও পশুপালন প্রভৃতি অর্থকরী ব্যবস্থাসহ চিকিৎসাকেন্দ্র ও পাঠাগার স্থাপনের বন্দোবস্ত করেন। সুখের বিষয় যে এই কেন্দ্রটি সাবলম্বী হয়ে এখনও নীরেনবাবুর পরিচালনায় বর্তমান আছে। এই ট্রাস্টি বোর্ডে আচার্যদেব স্বয়ং, সতীশচন্দ্র দাসগুপ্ত, ক্ষিতীশচন্দ্র দাসগুপ্ত, সুরেশচন্দ্র মজুমদার, মাখনলাল সেন, অধ্যাপক প্রফুল্লচন্দ্র মিত্র ও আমি মেম্বর ছিলাম। নিয়মিত ভাবে এই ট্রাস্টিবোর্ডের সভায় পরীক্ষিত হিসাব ও কার্যবিবরণী পেশ করা হত; আমি সে বিষয়ে স্বয়ং সাক্ষ্য দিতে পারি। স্বর্গারোহণের সামান্য কিছুদিন পূর্বে বর্তমানে পূর্ব-পাকিস্থানের অন্তর্গত শ্রীপুরে তাঁর অন্যতম প্রিয় শিষ্য অরবিন্দ সর্দারের বাড়ীতে এই ট্রাস্টিবোর্ডের যে সভা হয়, তাতেও আমি উপস্থিত ছিলাম। তখন জানা গেল যে, সেবা-কেন্দ্রটি সাবলম্বী হয়ে উঠেছে বটে, কিন্তু ট্রাস্টিগণের উপর ন্যস্ত টাকা প্রায় নিঃশেষ হয়ে গেছে। দুঃখ হয় যে, যিনি আজীবন বিলাসবাসন থেকে সর্বদা শতহস্তদ্বারে থেকে শুদ্ধ লোকমণ্ডল ও দেশহিতৈষণাকেই জীবনের একমাত্র অবলম্বন করেছিলেন,—সেই ত্যাগরতী নিঃস্বার্থ দরিদ্রবান্ধুর সম্বন্ধে সংখ্যায় অল্প হলেও কিছু লোক এই ভুল ধারণা পোষণ করেন।

উত্তরবঙ্গ-প্লাবনের পর কাঁথি ও তমলুক মহকুমায় দুটি প্লাবনেও তাঁর সেবাহস্ত

প্রসারিত হয়। দু'বারই আমাকে সম্পাদক নিযুক্ত করে সরেজমিনে সেবাকার্য তদারক কর-
বার জন্য তিনি যখন আমায় পাঠান তখন কোনও সেবাকর্মী কোনও অপকার্য অথবা
সাহায্য বিতরণে কোন রকম পক্ষপাতিত্ব করছেন কিনা, সে সম্পর্কে তীক্ষ্ণ দৃষ্টি রাখতে
আদেশ দিয়েছিলেন। সেই সেবাকার্যের শেষে স্থায়ী গঠনমূলক কর্মের জন্য তমলুকের
কুলাপাড়া ও মেদিনীপুরের জুখিয়াতে খন্দরতৈরীর কেন্দ্র করে কুলাপাড়া কেন্দ্রের ভার
ভীমাচরণ মহাপাত্র ও জীবেশ মিশ্রের উপর এবং জুখিয়া কেন্দ্রের ভার প্রমথনাথ বন্দ্যো-
পাধ্যায়ের উপরে অর্পণ করি। কুলাপাড়া কেন্দ্রটি এখনও বর্তমান এবং খাদিমন্ডল-
নামক প্রতিষ্ঠানের দ্বারা এখনও পরিচালিত হচ্ছে; জুখিয়া কেন্দ্রটি আর নেই।

আচার্যদেব গান্ধীবাদী হয়েও কেবলমাত্র খন্দর প্রচারেই রত থাকলেন, কিন্তু মুক্তি-
যুদ্ধে সক্রিয়ভাবে কেন অংশগ্রহণ করলেন না, অনেকের কাছেই আজও এটা একটা প্রশ্ন।
কিন্তু আমরা বিশেষভাবেই জানি যে, যে শিক্ষাবিস্তার, শিল্পের প্রসার ও লোকহিত-
সাধনের রতকে তিনি জীবন-সাধনা করেছিলেন, রাজনৈতিক আবর্তে তা ব্যাহত হতে পারে
—এই আশঙ্কাতেই তিনি সক্রিয়ভাবে রাজনৈতিক আন্দোলনে যোগ দেন নি। কিন্তু সর্বদাই
রাজনৈতিক আন্দোলনের সঙ্গে তাঁর আন্তরিক যোগাযোগ ছিল। আমি যখন সিভিল
ডিসঅবডিয়েন্স লীগের প্রথম কার্যকরী সম্পাদক নিযুক্ত হই, তখন তাঁরই আগ্রহে খুলনার
রাড়ুলী গ্রামে তাঁর পৈতৃক বাসভূমিকে কেন্দ্র করে যে লবণ সত্যাগ্রহ হয়, তার উদ্বেোধন
করেন খুলনার কমশী যামিনীবাবু এবং তদারক করবার জন্য আমি তাঁর আশীর্বাদ মাথায়
নিয়ে, রাড়ুলীতে তাঁর বাড়ীতেই অতিথি হই। তারপর সেখান থেকে ফিরে তমলুকের
কুলাপাড়ার কাছে যে লবণ-আইন-ভঙ্গ আন্দোলন পরিদর্শনে যাই—তাও তাঁর জ্ঞাতসারে
এবং অনুমোদন ক্রমেই ঘটে। এগুলিতে তাঁর মুক্তি-আন্দোলনের প্রতি সহানুভূতির
পরিচায়ক।

আমার দিদি স্বর্গতা জ্যোতির্ময়ী গাঙ্গুলীও তাঁর বিশেষ স্নেহপাত্রী ছিলেন।
তাঁর সমস্ত রাজনৈতিক কাজে এবং শিক্ষা ও সমাজসেবার কাজে আচার্যদেবের আশীর্বাদ
সর্বদা দিদি পেয়েছেন। কলিকাতা কর্পোরেশনের কাউন্সিলার নির্বাচনে নির্বাচন প্রার্থী
হয়ে দিদি যখন তাঁর আশীর্বাদ ভিক্ষা করেন—তখনই তিনি উদারহস্তে আশীর্বাদ লিপি
লিখে দেন। দিদির আহ্বানেই তিনি আর্থস্থান ইন্সটিটিউট কোম্পানীর সভাপতি পদ গ্রহণ
করেছিলেন এবং জীবনসাম্রাজ্যে কিছুদিন তাঁর আতিথ্য স্বীকার করে গেছেন।

আমাদের পরিবারের প্রতি স্নেহপ্রবণ এই মহৎ জীবনের এই স্নেহধারার কথা
সকৃতজ্ঞ অন্তরে স্মরণ করে আমার স্মৃতিচারণ শেষ করছি।

আচার্য স্মরণে

শ্রীমতী নীলিমা ঘোষ

আজ আমাদের পরম পূজনীয় আচার্য প্রফুল্লচন্দ্র রায় মহাশয়ের জন্মশতবার্ষিকী উপলক্ষ্যে আমি কিছু লিখতে বসেছি। লেখার অভ্যাস আমার কোন কালেই নেই তবু, আমি স্মৃতির পাতা উল্টে যা একটু মনে আছে লিখছি। সে আজ থেকে প্রায় ৩৮।৩৯ বছর আগেকার কথা—আমার স্বামী ডাঃ ‘জ্ঞানচন্দ্র ঘোষ তাঁর প্রিয় ছাত্রদের মধ্যে একজন ছিলেন। তাঁকে তিনি নিজের ছেলের মত স্নেহ করতেন। আমিও সেই স্নেহের ভাগ পেয়েছিলাম। ১৯২২ সালে ডাঃ ঘোষের সঙ্গে আমার বিয়ে হয়। বিয়ে উপলক্ষ্যে আমার আশীর্বাদের দিন আচার্য রায়কে আমি জীবনে প্রথম দেখি। এর আগে তাঁকে দেখবার সুযোগ আমার কোন দিনই হয়নি। বইয়ে কাগজে তাঁর নাম ও ছবি দেখেছিলাম। আমার শ্বশুর মশাই আমার বিয়ের অনেক আগেই মারা গিয়েছিলেন। আচার্য রায়ই আমায় সর্বপ্রথম আশীর্বাদ করেছিলেন। গহনার বাস্ফাটি হাতে নিয়ে তাঁর সঙ্গীদের বলেছিলেন—“ওহে, খুলে দাও ত দেখি, কি আছে এতে।” তাঁর ত কোনদিন গহনার বাস্ফাখোলার অভ্যাস ছিলনা। আমায় দেখে বলেছিলেন—“বেশ মোটা মোটা হাত, স্বাস্থ্য ভাল দেখাচ্ছে।” তাঁর নিজের স্বাস্থ্য ভাল ছিলনা, কিন্তু তিনি চাইতেন বাংলার ছেলেমেয়েরা স্বাস্থ্যবান ও স্বাস্থ্যবতী হোক। কোন যুবক তাঁর সঙ্গে দেখা করতে এলে বলতেন—“দেখি তোর কি রকম স্বাস্থ্য; আমার কীল চড় সহ্য করতে পারবি ত?” বলে, দমাদম্ ওদের বুকে পিঠে কীল চড় মারতেন।

সারা দিনের কাজের পর সন্ধ্যা বেলায় “বড় আকাশে”র তলায় না বেড়ালে তাঁর মন ভরতনা। এই সময়ে তিনি তাঁর প্রিয় ছাত্রদের নিয়ে, তখনকার দিনের ঘোড়ার গাড়ী চড়ে ময়দানে বেড়াতে যেতেন। সেখানে তাঁদের সঙ্গে ঠর অনেক রকম আলাপ আলোচনা হত। আমার বিয়ের পর আমাদের দুজনকেও একদিন নিয়ে গিয়েছিলেন।

তখনকার দিনে মেয়েদের বাইরে যাওয়ার ততটা চল ছিলনা। সেই আমি প্রথম বাইরে বের হলাম। সেদিনকার সেই অশ্রুত অনভূতি আমি কোন দিন ভুলবনা। আমার স্বামী তখন ঢাকা ইউনিভার্সিটির প্রফেসর; তিনি ঢাকায় গেলে আমাদের ওখানেই উঠতেন। আমাদের বাড়ীর বাগান বড় হোলও উনি হেসে বলতেন—“ও তোমাদের ছোট আকাশ।” এই বলে রমণার মাঠে বেড়াতে চলে যেতেন। বাঙ্গালোরেও যখন ছিলাম, উনি গেলে রোজ নিয়ম করে সন্ধ্যার সময় কাম্বন পার্কে যেতেন।

আচার্যদেব খুব অনাড়ম্বর ভাবে জীবন যাপন করতেন, আর চাইতেন যে আমরাও যেন আমাদের ছেলেমেয়েদের বিলাসিতার মধ্যে মানুষ না করি। ছেলেদের লুচি খেতে দেখলে বলতেন—“ওরে ওদের লুচি খাইয়ে ইহকাল পরকাল ঝরঝরে করছি।” “মুড়ি দে, মুড়ি দে।” মুড়িকে উনি বলতেন, “স্বদেশী বিস্কুট”। কোন যুবক যদি টের কেটে সিলেক্ট পাঞ্জাবী গায়ে তাঁর সঙ্গে দেখা করতে আসত, উনি খুব বিরক্ত হতেন। প্রথমেই তার টেরিটিতে হাত দিয়ে ঘেঁটে দিতেন।

বাংলা দেশের তখন দুর্দিন। বেকার যুবকে বাংলা পরিপূর্ণ। তাই তিনি চাইতেন বাংলার যুবক সম্প্রদায় বিলাসিতায় দিন না কাটিয়ে কৃষি, উদ্যমশীল ও স্বাবলম্বী হোক। তাঁর নিজের পরিচ্ছদ ছিল অতি সাধারণ। বাড়ীতে তিনি একটি চেককাটা লুঙ্গি ও খন্দরের পাঞ্জাবী পরতেন। সেগুণি আবার তিনি নিজের হাতে কাচতেন। যখন বাইরে কোন কাজে যেতেন তখন খন্দরের ধুতি পরতেন। স্বদেশী জিনিসের প্রতি তাঁর

অত্যন্ত টান ছিল। তাঁর একান্ত উৎসাহে স্বদেশী কাপড়ের মিল, স্বদেশী ওষুধের ও প্রসাধন-সামগ্রীর কারখানা, স্বদেশী চীনামাটির বাসনের কারখানা গড়ে ওঠে।

আচার্যদেব তাঁর সব কাজকর্ম, খাওয়াদাওয়া, পড়াশোনায় নিয়ম মেনে চলতেন। সেইজন্য তাঁর খাওয়া খুব পরিমিত ছিল; কিন্তু তিনি ভাল-মন্দ খেতে ভালবাসতেন। অতি প্রত্যুষে তিনি এক পোয়া দুধের সঙ্গে চা মিশিয়ে খেতেন, সঙ্গে আধাসিন্ধ ডিম ও পাউরুটি থাকত। এই প্রসঙ্গে মনে পড়ল তিনি লিখেছিলেন—“চা পান না বিষপান।” তিনি চা খাওয়া ছেড়ে দিয়েছিলেন, কিন্তু পরে দিনে একবার চা খেতেন; দুপুরে হালকা রান্নার তরকারি, মাছ ও দুই খেতেন। ভাত নামে মাত্র খেতেন। বিকাল ৪টায় এক টুকরো আপেল, কেক ও মিষ্টি খেতেন। স্পঞ্জ কেক খেতে খুব ভালবাসতেন; আর মিষ্টির মধ্যে ঘরে তৈরী পান্তুয়া খুব পছন্দ ছিল, কিন্তু হজমের দোষ থাকতে খেতে সাহস করতেন না। তিনি বলতেন—“নিরীহ, নিরীহ! এ খেলে আর কিছ্ হবে না।” সন্ধ্যার পর ছোট ছোট আটখানা লুচি (এখনকার ফুল্কার মত) ও একটু আলু-পেঁয়াজের তরকারি খেতে ভালবাসতেন। একদিন তাঁর সখ হয়েছিল লুচি কি করে ভাজে দেখবেন। তখন তাঁর ঘরে বসে ময়দা মেখে লুচি ভেজে দেখান হোল। কুলের আচারের প্রতি ঠুর একটু দুর্বলতা ছিল। আমার ছোট জায়ের কাছে উনি একটি চিঠি লিখেছিলেন সেটা নীচে দিলাম :—

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সেদিন বিনা notice এর অর্থাৎ surprise visit দিয়া তোমার ওখানে ৬টা লেবু আর দুই রকম গজা ও কুলের চার্টনি লইয়া আসিলাম, আর notice দিয়া গেলে না জানি কত কি পাইতাম। আজ এক বোতল আমের চার্টনি পাঠাইতেছি। ইহা আমাকে একজন উপহার দিয়াছিল; কিন্তু আমার কুলের চার্টনিই ভাল লাগে। আশা করি, তোমাদের নিকট ইহার কদর হইবে।

শ্রীপ্রঃ—

তিনি যখন আমাদের বাড়ী থেকে কলকাতায় চলে যেতেন, তখন তাঁর সঙ্গে নানারকম খাবার করে দেওয়া হোত। দেখে শুনে তিনি বলতেন—“এ যেন মেরেকে শব্দর বাড়ী পাঠান হচ্ছে।”

আমার ভাণ্ডে শ্রীমান শচীন্দ্রনাথ তাঁর খুব যত্ন ও দেখাশোনা করত। তাই তিনি বলতেন—“বাড়ীর কর্তা কে? না—শচীন।” আর আমার স্বামীকে দেখিয়ে বলতেন—“ও! ও হচ্ছে গোবেচারা চোর।” আমার ছোট দেওর ডাঃ ভূপেন্দ্রনাথ ঘোষ সম্বন্ধেও তাঁর ঐ একই ধারণা ছিল। আমার পূজনীয় শাশুড়ীর সঙ্গে দেখা হলে বলতেন “কে বড়? আপনি না আমি?” মনে মনে ইচ্ছে ঠেকেই ছোট বলা হোক।

তাঁর একটি অম্ভুত অভ্যাস ছিল। দুপুরে যখন বিশ্রাম করতেন ঘরের দরজা জানালা বন্ধ করে চোখটি বড় রুমাল দিয়ে বেঁধে শতেন। খাওয়াদাওয়ার পর একটি করে পান তিনি ছেঁচে খেতেন। সে কারণে ছেলেমেয়েরা তাঁর নামকরণ করেছিল “পান-ছেঁচা দাদু”। তাঁর পান ছেঁচবার জন্য ছেলেমেয়েদের মধ্যে কাড়াকাড়ি পরে যেত। যদিও তিনি স্বনামধন্য পুরুষ ছিলেন শিশুদের সঙ্গে কিন্তু তিনি সহজেই মিশতে পারতেন। ছেলে-মেয়েরা তাঁর উপর যে রকম অত্যাচার করত আমরা সতর্কতা বোধ করতাম। কিন্তু তিনি কিছু মনে করতেন না, বরং ভালবাসতেন। ছেলেদের সঙ্গে মাঠে মাঠে ঘুরতেন, গাছের কুলটা, বেলেটা পেড়ে দিতেন। ছাগলের দড়ি ধরে বসে থাকতেন।

অত্যন্ত স্নেহপ্রবণ মন ছিল তাঁর। এইরূপ কোমল অন্তর ছিল বলেই তিনি

নিঃস্বার্থভাবে তাঁর সকল কিছু জনসাধারণের জন্য বিলিয়ে দিতে পেরেছিলেন। দুর্যোগে, সঙ্কটে, ভূমিকম্পে, জলপ্লাবনে, আতের পরিব্রাণের জন্য তাঁর প্রাণ ব্যাকুল হোত। ভিক্ষুর ঝুলি হাতে তিনি রাজপথে বের হয়ে পড়তেন। তিনি বৈজ্ঞানিক হোলেও সাহিত্যচর্চা করতে ভালবাসতেন। একদিন শরৎচন্দ্রের "নব বিধান" পড়তে পড়তে বলেছিলেন—“তুমি এরকম মোচার ঘন্ট, গাছপাঠা রাঁধতে পার?” সেক্সপীয়রের রচনা তাঁর অত্যন্ত প্রিয় ছিল। আমার ছোট দেওর ডাঃ ভূপেন্দ্রনাথ ঘোষের বিয়ের পর একদিন তাকে নিজের ঘরে ডেকে পাঠান ও একটি মূখবন্ধ খাম দিয়ে বলেন—“এটি ছোট বোমাকে দিও।” খাম খুলে দেখা গেল তাতে লেখা আছে :—

28/11/40

Dr. B. N. Ghosh being of very shy disposition has puzzled many as to how he won his bride. The explanation lies below :—

In Belmont is a lady richly left;
And she is fair and, fairer than that word,
Of wondrous virtues: sometimes from her eyes
I did receive fair speechless messages:

1. 1. 161-164, Merchant of Venice.

তিনি ছিলেন আদর্শ গুরু। শিষ্যদের তিনি একান্ত আপন জন মনে করতেন। শিষ্যদের মানসিক উৎকর্ষের জন্য তিনি অত্যন্ত আন্তরিকতার সঙ্গে চেষ্টা করতেন। সেই কারণে শিষ্যরাও তাঁকে অত্যন্ত শ্রদ্ধা করত। এই ধরনের গুরুশিষ্য সম্পর্ক সর্বকালেই অনুকরণীয়। আমার স্বামীর কর্মপ্রবাহ আচার্য রায়ের আদর্শে অনুপ্রাণিত। তিনি আমার স্বামীর সঙ্গে যে সকল আলোচনা করতেন, যে সকল উপদেশ দিতেন, তা আমার স্বামী সর্বদাই শিরোধার্য করতেন। আমার স্বামী আচার্যদেবের সম্বন্ধে যে কথা বলেছিলেন তার থেকে কিছু অংশ উদ্ধৃত করে এই প্রবন্ধ শেষ করছি—“তিনি প্রণম্য, তিনি প্রাচীন, অসীম তাঁর জ্ঞান, কিন্তু তিনি আমাদের আতি নিকট বন্ধুসম ছিলেন। তাঁহার অপরিমিত স্নেহের প্রভাবে ও সত্যদৃষ্টিতে এবং পরস্পরের ভাবের আদানপ্রদানে আমরা আমাদের ভাবী জীবনপথের সিগ্‌ন্যাল দেখিতে পাইয়াছিলাম।”

এই প্রসঙ্গে মনে পড়ে রবীন্দ্রনাথের কথা : “আমি প্রফুল্লচন্দ্রকে সেই আসনে অভি-
নন্দন জানাই যে আসনে প্রতিষ্ঠিত থেকে তিনি তাঁর ছাত্রের চিত্তকে উন্মোচিত করেছেন—
কেবল মাত্র তাঁকে জ্ঞান দেন নি নিজেকে দিয়েছেন,—যে দানের প্রভাবে সে নিজেকেই পেয়েছে।
বস্তুজগতে প্রচ্ছন্নশক্তিকে উন্মোচিত করেন বৈজ্ঞানিক। আচার্য প্রফুল্লচন্দ্র তার চেয়ে গভীরে
প্রবেশ করেছেন। কত যুবকের মনোলোকে ব্যস্ত করেছেন তার গৃহাহিত অনভিব্যক্ত
দৃষ্টিশক্তি, বিচারশক্তি, বোধশক্তি।”

তিনি প্রায়ই বলতেন—“সর্বত্র জয় অনুসন্ধান করিবে, কিন্তু পদ্র এবং শিষ্যের
নিকট পরাজয় স্বীকার করিয়া সূখী হইবে।”

আচার্য প্রফুল্লচন্দ্র স্মরণে

শ্রীপ্রফুল্লচন্দ্র ঘোষ

উনবিংশ শতাব্দী বাংলার ইতিহাসে এক সুবর্ণযুগ। ধর্ম, সাহিত্য, বিজ্ঞান, শিল্পকলা, রাজনীতি প্রভৃতি সকল ক্ষেত্রে জন্মেছিলেন বহু মনীষী। তাঁরা শুধু বাংলার নয় সমস্ত ভারতের মুখ উজ্জ্বল করেছেন। আচার্য প্রফুল্লচন্দ্র রায় তাঁদের অন্যতম।

ঠিক পঞ্চাশ বৎসর পূর্বের কথা। ১৯১১ সাল। তখন ঢাকা কলেজে তৃতীয় বার্ষিক শ্রেণীতে রসায়নবিজ্ঞানে অনার্স নিয়ে পড়ি। এসেছি প্রথম কোলকাতায়। আচার্য রায় তখন একজন খ্যাতিমান রসায়নবিজ্ঞানী ও বেঙ্গল কেমিক্যালের প্রতিষ্ঠাতা হিসাবে শিক্ষিত ও ছাত্রসমাজের শ্রদ্ধার পাত্র। প্রবল ইচ্ছা তাঁর সঙ্গে সাক্ষাৎ করি ও বেঙ্গল কেমিক্যালের কারখানা দেখি। কিন্তু কোন পরিচয়-পত্র ছিল না। সাহসে ভর করে চলে গেলাম তাঁর আপার সাকুলার রোডের আবাসস্থলে। একটুকরা কাগজে লিখে পাঠালাম পরিচয় ও উদ্দেশ্য। প্রায় সঙ্গেসঙ্গেই বেরিয়ে এসে অতি স্নেহভরে ডেকে নিলেন ভেতরে। এমন ভাবে আলাপ করলেন যেন আমি তাঁর অতি স্নেহের পাত্র। বেঙ্গল কেমিক্যাল কারখানা দেখবার সব ব্যবস্থা করে দিলেন। সেই সময়কার ম্যানেজার শ্রীপ্রবোধ চট্টোপাধ্যায় নিজেকে আমাকে নিয়ে সব দেখালেন। এতটা ছিল আমার কল্পনাতীত। এ দিনটি আমার জীবনের পরম শুভদিন। এ মধুর অভিজ্ঞতা ভুলবার নয়।

তারপর দীর্ঘ ত্রিশ বৎসরেরও অধিক সময় এ মহানুভব ব্যক্তিকে তাঁর বিভিন্ন কার্যাবলীর মধ্য দিয়ে নিবিড়ভাবে দেখবার, বন্ধুবার ও জানবার সুভাগ্যলাভ করেছি। রসায়নবিজ্ঞানে তাঁর চেয়ে কৃতকর্মী লোক আজ ভারতবর্ষে আছেন। রসায়নশিল্পের প্রতিষ্ঠাতা হিসাবে তাঁর চেয়ে উপযুক্ত লোকও হয়েছেন, তাঁর মত সরল সাদাসিঁদে ছাত্রপ্রেমী শিক্ষাবিদও ভারতে জন্মেছেন, তাঁর মত আত্মসেবকও আছেন, তাঁর চেয়ে ত্যাগী দেশপ্রেমিকও আছেন, আধুনিক যুগের মানুষ হয়ে অতীতের প্রতি তাঁর মত শ্রদ্ধাশীলও আছেন, বহু শিল্পের পুজারী হয়েও গ্রামে গ্রামে কুটীর শিল্পের প্রসারের পক্ষপাতী লোকও আছেন, সহরবাসী হয়েও গ্রাম্যজীবনের মাধুর্য উপলব্ধিকারীও আছেন, অন্য কোন প্রদেশের প্রতি বিরূপভাবাপন্ন না হয়েও বাংলার উন্নতিকামী লোকও আছেন, প্রেম ও ভালবাসার সঙ্গে বাংলার হৃদয়, বিচ্যুতি ও দুর্বলতা দেখাতে হয়তো তাঁর চেয়ে সিঁধ হস্ত কেউ কেউ আছেন, কিন্তু এত সব গুণের একত্র সমাবেশ একটি মানুষে বিরল। আমি দেখিনি বললেও অত্যাঙ্গি হয়না। আজ দেশের এই সংকটময় সময়ে তাঁর মত লোকের প্রয়োজন সর্বাধিক। যখন চিন্তা করি, অনুভব করি তাঁর অভাব। চোখের সামনে ভেসে উঠে সে মানুষটির চেহারা।

বাংগালীদের কেতাবী-পড়ার দিকে অত্যধিক ঝোঁক তিনি খুবই অপছন্দ করতেন। একদিন বিজ্ঞানকলেজে গিয়েছি দেখা করতে। সে সময় এম্. এ. পাশ এক ভদ্রলোক এসেছেন। নতুন আর একটি বিষয়ে এম্. এ. পরীক্ষার জন্য প্রস্তুত হচ্ছেন শুনেই তাঁর স্বভাবসিঁধভাবে বলে উঠলেন—“Creator created the Bengalees for passing examinations, fulfil His wish.” ভদ্রলোক ত একেবারে চূপ।

বাংগালী সমাজে মামলাপ্রবণতার তিনি ছিলেন ঘোরতর বিরোধী। তাই এমন কি আইনকলেজ একেবারে বন্ধ করে দেওয়ার তিনি পক্ষপাতী ছিলেন। কিন্তু এর মধ্যে

আইনজীবীদের প্রতি কোন ব্যক্তিগত বিশ্বেষ ছিল না। কোন কোন আইনজীবীর গুণ মন্তকণ্ঠে বলতে শুনছি। খ্যাতনামা আইনজ্ঞ রাসবিহারী ঘোষ সন্বন্ধে একাধিকবার আমাকে বলেছেন, “Had there been no Rashbehari Ghosh, there would have been no Bengal Chemical to-day. যখন বেঙ্গল কেমিক্যাল আর্থিক অসুবিধায় পড়েছে, তাঁর কাছে গিয়েছি। তিনি টাকা দিয়েছেন। তাই তাঁর শেয়ার।”

তিনি সুস্থ সবল লোক দেখলে খুসী হতেন, আর দুর্বল লোক দেখলে ব্যথিত হতেন। তা শুধু বাঙালীদের বেলায় নয়। কোকনদ কংগ্রেসে যাচ্ছেন খাদিপ্রদর্শনী উদ্বেোধন করতে। গাড়ী বদল করে কামরায় উঠে চক্ৰবর্তী রাজগোপালাচারীকে দেখেই বলে ফেললেন, “Frail, fragile frame.” রাজাজীও অর্মানি বললেন—“Leading to the fourth F—failure.”

বিজ্ঞানের নামে যা সব চলছে তা সবই যে যুক্তিসঙ্গত তা তিনি মনে করতেন না। একদিন সোদপুর খাদিপ্রতিষ্ঠানে সকালবেলা তিনি নিমদাঁতন করছেন। মহাত্মা গান্ধীও তখন সোদপুর। তিনি আচার্য রায়কে নিমদাঁতন করতে দেখে বললেন :— “You are using *Neem* stick, but you manufacture tooth powder from the Bengal Chemical.” আচার্য রায় সোজাসুজি বললেন : “That is meant for the fools, we manufacture it, otherwise they would use foreign products.”

তিনি নিজের জন্মগ্রামকে (খুলনা জিলায় রাড়ুলী) খুব ভালবাসতেন। একবার সেখানে রাজনৈতিক সম্মিলনী হবে। গ্রামবাসীরা তাঁর সাথে দেখা করেন। তিনি তাঁদের বললেন, আমার রাজনীতির সঙ্গে প্রত্যক্ষ যোগাযোগ নেই। তবে আমার গ্রামে বহু গণ্যমান্য লোক আসবেন। তাঁদের খাওয়াদাওয়া ইত্যাদির অসুবিধা হলে গ্রামের অসম্মান হবে—আমারও। অতএব এদিকে সুব্যবস্থার জন্য যা কিছু প্রয়োজন করতে প্রস্তুত আছি। করেছিলেনও। গঠনমূলক কাজের জন্য যখন কয়েকমাস সে গ্রামে ছিলাম তখন পুণ্ড্রানুপুণ্ড্র-ভাবে খবর নিতেন। গ্রামের যাতে সর্বাঙ্গীন উন্নতি হয় সেদিকে ছিল তাঁর চিন্তা।

শুধু এ-গ্রামটি নয়, বাংলার সকল গ্রামই যাতে সমৃদ্ধিশালী হয়ে উঠতে পারে তাই ছিল তাঁর ধ্যান। কাজেই তিনি ভালবাসতেন মহাত্মাজীর গঠনমূলক কার্যক্রম। সে কার্যক্রমের প্রসারকল্পে তিনি বৃন্দবয়সেও বাংলার প্রায় সব গঠনমূলক কর্মকেন্দ্রে যেয়ে কর্মীদিগকে উৎসাহ দিয়েছেন—সাধ্যমত আর্থিক সাহায্যও করেছেন। গঠনমূলক কর্মীদের তিনি ছিলেন একপ্রকার পিতৃস্থানীয়।

হে মহাপ্রাণ, তোমায় নমস্কার!

স্মৃতিকথা

শ্রীসুদনীত কুমার ঘোষ

পূণ্যশ্লোক আৰ্য আচার্য প্রফুল্লচন্দ্র রায় তৎকালীন অখণ্ড বাঙ্গলার যশোহর (পরে খুলনা) জেলার রাড়ুলী গ্রামে জন্মগ্রহণ করেন। এই রাড়ুলী গ্রামটির এক পাশে মধুসূদনের চতুর্দশপদী কবিতাবলীতে বর্ণিত কপোতাক্ষ নদ ও অন্যদিকে মধুসূদনের মাতুলালয় কাটপাড়া গ্রাম। প্রফুল্লচন্দ্রের পিতার নাম হরিশচন্দ্র, মাতা ভুবনমোহিনী। শূনিয়াছি, হরিশচন্দ্র রুচির বিচিত্রতায় ব্যক্তিগত স্বাচ্ছন্দ্য ও সৌখীনতার প্রতি বিশেষ দৃষ্টি দেন। তৎকালীন বঙ্গসমাজে রাজা দিগম্বর মিত্র, বিদ্যাসাগর প্রভৃতির সাহচর্যে নিত্য নূতন কল্যাণময় সন্ধানে তিনি ছিলেন; তাহারই ফলে দেশের বাড়ীতে নূতন ধরণের বাসগৃহ, নিজ পাঠশালার উদ্‌ পাসী পুস্তক সংগ্রহ ও বিদ্যালয় প্রতিষ্ঠা তিনি করেন। মাতা ভুবনমোহিনী সত্যি ভুবনমনোমোহিনী, সৌন্দর্যের লালিত্যে ও স্নেহশীল সংস্পর্শে তিনি সত্যি অভিনব। হরিশচন্দ্র রায়ের পাঁচটি পুত্র, যথা জ্ঞানেন্দ্রচন্দ্র, নলিনীকান্ত, প্রফুল্লচন্দ্র, পূর্ণচন্দ্র ও গোপালচন্দ্র (বৃদ্ধ)। গোপালচন্দ্র প্রায় ত্রিশ বৎসর বয়সে অবিবাহিত থাকিয়া দেহরক্ষা করেন। দুই কন্যা :—জ্যেষ্ঠা ইন্দুমতী ও কনিষ্ঠা বেলা। কনিষ্ঠ বেলা অতি শৈশবেই মারা যান।

রাড়ুলীর রায় পরিবারের সহিত কাটপাড়ার ঘোষদের বহু মধুর স্নেহময় সম্বন্ধ আছে। তৎকালীন দক্ষিণ রাঢ়ী কায়স্থ সমাজের সহিত রায় পরিবার আত্মীয়তায় ও বন্ধুত্বে যশোহরের বাঘুটিয়ার সুবিখ্যাত ঘোষ পরিবার, ভাড়াসিমলার (তাহার মাতুলালয়) সমাজ ও পাঁজিয়ার বসু পরিবার প্রভৃতি বিশিষ্ট বংশের সহিত সংশ্লিষ্ট। রায় পরিবারের সামাজিক উপাধি দেব ও তৎকালীন তাহারা সমাজে গোষ্ঠীপতি বলিয়া স্বকীয় বৈশিষ্ট্যে গৌরবময়। হরিশচন্দ্র তাহার কন্যা ইন্দুমতীকে কলিকাতার স্বনামধন্য জোড়াসাঁকো ঘোষ পরিবারে বিবাহ দেন।

বাল্যে প্রফুল্লচন্দ্র বড়ই প্রাণচঞ্চল ছিলেন। অতিশয় শৈশব হইতে পেটের অসুখে রুগ্ন থাকায় তাহাকে বড়ই বিব্রত হইতে হয়। স্বাস্থ্যের বিরূপতায় তাহাকে কয়েক বৎসর পড়াশুনা ছাড়িতে হইয়াছিল, কিন্তু প্রাণচঞ্চল বালক অফুরন্ত প্রাণের বেগে সবই হাসিমুখে কাটাওয়া দেন।

বাল্যের প্রাথমিক পাঠশেষে তিনি হেয়ার স্কুলে ভর্তি হন। তারপর পূজ্যপাদ বিদ্যাসাগরের নির্দেশে তাহার পিতা তাহাকে বিদ্যাসাগর মহাশয় প্রতিষ্ঠিত মেট্রোপলিটান (বর্তমানে বিদ্যাসাগর) কলেজে ভর্তি করেন। মেট্রোপলিটান কলেজে বঙ্গের অন্যতম রত্ন কালীকৃষ্ণ ভট্টাচার্য তাহার অধ্যাপক ছিলেন। বড়ই আশ্চর্যের কথা বিশ্ববিদ্যালয়ে রসায়ন পরীক্ষার অব্যবহতি পূর্বে প্রফুল্লচন্দ্র বিশেষ বিব্রত মনে করেন ও পরীক্ষা দিবেন না বলিয়া সংকল্প করেন। কিন্তু তাহার জ্যেষ্ঠ ভ্রাতা পরম পূজনীয় জ্ঞানেন্দ্রচন্দ্রের আশ্বাসে ও নির্ভর উপদেশে তিনি পরীক্ষার হল হেদয়ার (বর্তমানে আজাদ হিন্দ বাগ) ধারে জেনারেল এসেম্বলী ইন্সটিটিউশনে (বর্তমানে স্কটিশ চার্চ কলেজ) উপস্থিত হন ও পরীক্ষার প্রথমার্ধ সমাপনান্তে অপেক্ষমান জ্যেষ্ঠ ভ্রাতার নিকট নিজ সফলতার ইঙ্গিত প্রকাশ করেন।

তিনি গিলখ্রাইস্ট পরীক্ষায় উত্তীর্ণ হইয়া স্কলারশিপ পান ও প্রধানতঃ তাহার উপর ভিত্তি করিয়া বিলাতে পড়িতে যান।

বিলাতে পাঁচ বৎসর এডিনবরা বিশ্ববিদ্যালয়ে পাঠ শেষ করিয়া তিনি দেশে

ফেরেন। বাঙলায় তখন তিনি বোধ হয় ষষ্ঠ কৃতী বিলাতফেরং ছাত্র। বড়ই আশা, ভারত সরকার শিক্ষাবিভাগে তাঁহাকে ইম্পিরিয়াল সার্ভিসে গ্রহণ করিবেন। কিন্তু তাঁহাকে শিক্ষাক্ষেত্রে প্রাদেশিক বিভাগে গ্রহণ করা হইল। ইহাতে তিনি ক্ষুব্ধ হইলেন। দার্জিলিংয়ের শৈত্যাবাসে তখন ডিরেইটর অফ পাবলিক ইনসট্রাকশন। কিন্তু নূতন বিদেশপ্রত্যাগত প্রফুল্লচন্দ্রের পক্ষে এমন অর্থসংগতি নাই যে, কর্তৃপক্ষের সহিত দেখা করেন। তাঁহার পিতার অর্থসংগতিতে তখন নানা কারণে বড়ই বিপর্যয় দেখা দিয়াছে। প্রফুল্লচন্দ্র তৎক্ষণাৎ তাঁহার জ্যেষ্ঠ ভ্রাতাকে সকল সমস্যার কথা খুলিয়া বলেন। তিনিও সে সময় শারীরিক অসুস্থতার জন্য অতি সামান্যই আয় করেন। তাঁহার জ্যেষ্ঠ ভ্রাতার পরামর্শে তিনি তাঁহার জ্যেষ্ঠা ভ্রাতৃবধূ হেমলতা দেবীর সহিত দেখা করেন। সকল কথা শুনিয়া নূতন বধূ তাঁহার সকল অলঙ্কার এই স্নেহাস্পদ দেবরের হস্তে সমর্পণ করেন। কিছুদিন পরে প্রফুল্লচন্দ্র তাঁহার বৌদিদিকে সকল অলঙ্কার ফেরং দেন। প্রসংগতঃ বলি যে, হেমলতা দেবী মহাভারত অনুবাদক বিখ্যাত কালীপ্রসন্ন সিংহের নিকট ভ্রাতৃপুত্রী। প্রফুল্লচন্দ্র দার্জিলিং গেলেন কিন্তু তাঁহার আবেদন নিষ্ফল হইল। ভারত সরকার তাঁহাকে বেঙ্গল কেমিক্যাল এন্ড ফার্মাসিউটিক্যাল ওয়ার্কস খুলিতে অনুমোদন করিয়া তাঁহাকে বাংলার নূতন ব্যবসায়ের পথিকৃৎ হইবার সুযোগ দেন। এই বেঙ্গল কেমিক্যাল তাঁহাকে পুরোভাগে রাখিয়া বাংলার শ্রম, নব নব উন্মেষশালিনী বুদ্ধি ও সংগঠনের পরিচয় দেয়। বেঙ্গল কেমিক্যালের বিস্তৃতির প্রয়োজনে, সালফিউরিক এসিড বিভাগ খুলিবার সময় অর্থাভাবে তাঁহার জ্যেষ্ঠা ভ্রাতৃবধূ আবার তাঁহার সকল অলঙ্কার দেবরটির হাতে দেন।

প্রফুল্লচন্দ্র গ্রীষ্মের ছুটিতে প্রতিবৎসর স্বগ্রাম রাড়ুলীতে তাঁহার পল্লীমায়ের স্নিগ্ধ অঞ্চলে আশ্রয় লইতেন। ইংরাজি ১৯০৯, বোধ হয় মে মাস। একদা সকালে আমি, আমার দিদিমা (আচার্যদেবের জ্যেষ্ঠা ভ্রাতৃবধূ), বেজুমামা (আচার্য দেবের জ্ঞাতী কাকা ও বয়সে অনেক ছোট) এবং সেজদাদা মহাশয় (আচার্যদেব) বামুন ও চাকরসহ বেলিয়াঘাটার খাল হইতে নৌকায় রাড়ুলী রওনা হইলাম। নৌকার সংকীর্ণ পরিবেশে আসিয়া সেজদাদা মহাশয়ের সহিত সংস্পর্শ নিকট হইল। তিনি অধিকাংশ সময় তারকনাথ গঙ্গোপাধ্যায়ের বিখ্যাত উপন্যাস 'স্বর্ণলতা' পড়িতেন ও মাঝে মাঝে আবেগের সহিত কোন কোন অংশ দিদিমাকে পড়িয়া শুনাইতেন। কখন কখন তাঁহাদের উভয়ের জীবনের প্রথম পরিচয়, মায়ের কথা ও রাড়ুলী বাড়ীর লোকজনের প্রসঙ্গ আলাপ হইত। মায়ের কথা বলিবার সময় তাঁহার চোখ হইতে অঝোরে জল ঝরিত। নৌকার সংকীর্ণ পরিবেশে রাতে আমাদের নিদ্রার জন্য শয্যা প্রায় পাশাপাশি হইত। বালসুলভ চঞ্চলতায় আমি আমার শয্যার সীমা লঙ্ঘন করিতাম ও আমার পা দুখানি আচার্যদেবের গলদেশ সাঁড়াশীর ন্যায় বেণ্টন করিত। সেজদাদা মহাশয় প্রসন্ন উল্লাসে ইহা বল্লালী কোলীন্যের অত্যাচারের অন্যতম নিদর্শন বলিয়া প্রকাশ করিতেন।

রাড়ুলীর বাড়ীতে আসিয়া বাড়ীর বিশালতার জন্য তাঁহার সহিত আমার দেখা বিরল ছিল। গ্রামের আবালবৃন্দবনিতা গরীব-দুঃখী ও প্রতিবেশীগণ তাঁহার সহিত দেখা করিতে আসিতেন। তিনি তাঁহাদের সকলের কথা শুনিতেন ও যথাযোগ্য সমাদর করিতেন। বাড়ীতে তখন খুলনার প্রাথমিক বিদ্যালয়ের ছাত্র-সমাজ ও শিক্ষকগণ আসিতেন। প্রত্যেক শিক্ষক ও ছাত্রকে পরিতোষ করিয়া খাওয়ান হইত ও প্রত্যেক শিক্ষককে অর্থসাহায্য করা হইত। 'দায়িতাং ভূজ্যতাং' রব পড়িয়া যাইত।

প্রতিদিন বিকালে সেজদাদা মহাশয় পাড়ার ছেলেদের সহিত জেলে ডিঙ্গি করিয়া কপোতাক্ষতে ভ্রমণ করিতেন। আমি তাঁহার সহিত বেড়াইতে যাইবার জন্য আবদার ধরিতাম ও নিষেধ শুনিয়া ফিরিয়া আসিতাম। কিন্তু একদিন পাড়ার ছেলেরা আমায় লইয়া সঙ্গোপনে জেলে ডিঙ্গিতে তাঁহার সহিত উঠিল। জেলে ডিঙ্গি যখন নদীবক্ষে সেজদাদা-মহাশয় তখন আমার উপস্থিতি জানিতে পারিলেন ও 'পরের ছেলেকে' আনিবার জন্য পাড়ার ছেলেদের মৃদু ভৎসনা করিলেন।

তারপর ১৯১০ সাল। আমার বয়স তখন প্রায় ১৩ বৎসর; অবসর পাইলেই আমার ছোট মা'র (ছোট মাসিমা) বাড়ী শিবদাহ ও সেজদাদা মহাশয়কে দেখিতে যাই।

একদিন সকালে সেজদাদা মহাশয়ের তদানীন্তন আবাসস্থান ৯১নং আপার সাকুলার রোড (বর্তমানে আচার্য প্রফুল্লচন্দ্র রোড) ও তৎকালীন বেঙ্গল কেমিক্যাল কারখানা বাড়িতে উপস্থিত হই। তিনি তখন পড়ায় মনোযোগী। আমি ঘরে ঢুকিয়া কিছুক্ষণ চুপচাপ বসিয়া রহিলাম। কিন্তু বেশীক্ষণ চুপচাপ না থাকিয়া বড়ই উস্খুস্ করিতে লাগিলাম। ইহাতে তাঁহার পড়ায় মনোযোগ নষ্ট হইল। তিনি বলিলেন, “আমি এই সময়টি একমনে পড়ি। তুমি আমায় বিরক্ত করিস না।” আমি তৎক্ষণাৎ ‘কুমারসম্ভব’-এ পাঠিত নতজানু সশরাসনপৃষ্ঠ মদনের অনুসরণে বলিলাম—

“কুৰ্ঘ্যাং হরস্যাপি পিনাকপাণেধৈৰ্য্যচ্যুতিং কে মম ধম্বিনোহন্যে?”

(পিনাকপাণি হরের ধ্যান আমি ভিন্ন অন্য ধনুর্ধারী কে ভাঙ্গিতে পারে?)

তিনি তৎক্ষণাৎ বিছানা হইতে উঠিয়া বলেন, “তোকে ‘কুমারসম্ভব’ পড়ান দাদার সার্থক হইয়াছে। নাতি ভিন্ন অন্য কাহার স্পর্ধা যে আমার পড়ার মনোযোগ ভাঙ্গিতে পারে?”

আর একদিনের কথা। ডিসেম্বর মাস। স্কুলের বাৎসরিক পরীক্ষার অবসরে দিন-গুণি অলসে হেলায় কাটিয়া যাইতেছে। একদিন সকালে ছোট মা'র বাড়ী হইতে ফিরিবার পথে সেজদাদা মহাশয়কে দেখিবার বড়ই ইচ্ছা হইল। আমি তাঁহার বাসস্থলে আসিলে যে সকল ছাত্র তাঁহার নিকট থাকিত তাহাদের মধ্যে একজন বলিলেন, “এখন দেখা হইবে না।” আমি একটুকরা চিলতা কাগজে নিম্নলিখিত পত্রের অনুরূপ লিখিয়া সেজদাদা মহাশয়কে দিতে বলিলাম।

শ্রীচরণেশ্বর সেজদাদা মহাশয়,

আপনাকে দেখিতে আসিয়াছিলাম। একটি ছাত্র বলিলেন, দেখা হইবে না। আপনাকে বাংগলার ম্ভিতীয় বিদ্যাসাগর বলে; বিদ্যাসাগর বাড়ীতে শুনিয়াছি দর্শনপ্রার্থীর অব্যাহত স্ফার। তাই কি, আপনি———পুঁথিয়াছেন?

প্রণত
সুনীত

পত্র পড়িয়া তৎক্ষণাৎ তিনি ছাত্রদিগকে আমায় ফিরিয়া আনিবার নির্দেশ দিলেন। ছাত্রদল আমাকে ধরিয়া তাঁহার সম্মুখে উপস্থিত করিল। আমি ত ভয়ে অস্থির। তিনি তাঁহার কৌচার কাপড় খুলিয়া গলবস্ত্র হইয়া কৃতাজলিপুটে প্রচ্ছন্ন কোতুকে বলিলেন, “ছেলেরা অর্বাচীন। তাহারা সমাজপতির সমাদর জানে না। তাই এই ভুল। আপনি ইহাদিগকে ক্ষমা করুন।” ইহাতে লেখকের বংশের প্রতি, তৎকালীন সমাজ-প্রচলিত সম্ভ্রমের প্রতি ব্যঙ্গ-চ্ছলে স্তুতির ইঙ্গিত আছে।

দুঃখের সহিত নিবেদন করি, বাংগলার ম্ভিতীয় বিদ্যাসাগরের তিরোধানের সহিত পোষাকে পরিচ্ছদে অনাড়ম্বর সরলতা আমাদের ক্ষীয়মান হইতে চলিয়াছে।

একদিন অপরাহ্নে তিনি একটি গুরুত্বপূর্ণ বক্তৃতার প্রস্তুতির জন্য ব্যস্ত। আমি তাঁহার বাসস্থানে উপস্থিত। হঠাৎ আমায় দেখিয়া বলিলেন, “তুমি দূর হ।” আমি দাঁড়াইয়া রহিলাম। একটু পরে তিনি আমায় জিজ্ঞাসা করিলেন, “তুমি এখনও দাঁড়িয়ে?” আমি বলিলাম : “আপনার ভবিষ্যতের কথা চিন্তা করিয়া আশঙ্কায় বড়ই ক্ষুদ্র হইয়াছি। কাঁব ফাদেীসী একদা একটি কুকুরকে তাঁহার প্রতি হনহনিয়া আসতে দেখে তাকে ‘দূর হ’ বলেন ও তৎক্ষণাৎ নিজের ভুল বোধিতে পারিয়া জিব কাটেন। আপনি একটি মানুষকে কটুবাক্য

বলিয়াছেন।" সেজদাদা মহাশয়ের সকল গাম্ভীৰ্য দূর হয়ে গেল। প্রসন্ন কৌতুকে তিনি আমায় আলিঙ্গন করিলেন।

তারপর প্রেসিডেন্সী কলেজ হইতে তাঁহার অবসর গ্রহণ। বেলা প্রায় তিনটায় ইউনিভার্সিটি ইন্সটিটিউটে তাঁহার সংবর্ধনা সভা। আমি কলেজ শেষ করিয়া প্রায় সাড়ে চারটায় ইন্সটিটিউটে গেলাম। তিনি তখন তাঁহার গাড়ীতে উঠিয়াছেন। তাঁহার সহিত দেখা হলে তিনি বলিলেন, "তুই এতক্ষণ কোথায় ছিলি? ওরা আমায় কত কি বলে। আমি বললাম, থামুন, আমার নাতি এলে আপনাদের মুখের মত জবাব দেবে; আর আমি মনে মনে ওয়াটারলু যুদ্ধের পূর্বে নেপোলিয়ানের মত নাইট (রাত্রি) বা রুচোরের (তাঁহার অন্যতম সেনাপতি) আগমন প্রতীক্ষায় অধীর ভাবে জপ করিতেছি।"

তিনি কলিকতা বিশ্ববিদ্যালয়ের বিজ্ঞানপীঠে কার্যরত। এমন সময় তৎকালীন ভারত সরকার তাঁহাকে 'নাইট' উপাধি দেন। তাঁহার সহিত দেখা হলে তিনি বলেন, "মহামান্য ভারতসরকার আমায় দিনের আলোয় ফেলিয়া না রাখিয়া রাত্রে অন্ধকারে মিশাইয়া দিতে চান।" বিশ্ববিদ্যালয়ক্ষেত্রে ভারত সরকারের কলিকতা বিশ্ববিদ্যালয়ের প্রতি বিরূপ মনোভাব। বাঙ্গলার শিল্প ও বাঙ্গালীর ব্যবসাক্ষেত্রে প্রতিষ্ঠার জন্য সাহায্য ও আবেগময়ী বক্তৃতা ও সাধারণ মানবের দৈন্যে তাঁহার কর্মমুখর সক্রিয় সাহায্য তৎকালীন ভারত সরকার অত্যন্ত বিরাগ ও আশঙ্কার চক্ষে দেখিতেন।

গুণমুগ্ধ কলিকতা বিশ্ববিদ্যালয় তাঁহার 'নাইট' উপাধি প্রাপ্তি উপলক্ষে বিজ্ঞান কলেজে পরম শ্রদ্ধেয় ডক্টর স্যার আশুতোষ মুখোপাধ্যায়ের সভাপতিত্বে এক সভা আহ্বান করেন। এই সভায় বহু গুণী, জ্ঞানী ও ছাত্রের সমাবেশ হয়।

তাঁহার কিছুদিন পূর্বে আমার সহপাঠী বন্ধু ও প্রতিবেশী বিভূতিভূষণ দে আমার বাড়ীতে আসেন। বিভূতি, অক্ষশান্তের বরাহমিহির তুল্য পরমশ্রদ্ধাস্পদ আচার্যপ্রবর গৌরীশঙ্কর দে মহাশয়ের পৌত্র। বিভূতি বলেন, "আচার্য রায়ের নাইট উপাধি উপলক্ষে বিজ্ঞান কলেজে সংবর্ধনা সভা হইবে। ঐ দিনে আমায় ডাকিয়া লইলে দুইজনে এক সঙ্গে যাইতে পারি।" আমি বলি, "আমি এই সভার কথা জানি না, আমার নিমন্ত্রণ নাই। অতএব আমি যাইব না।" মনে তারপর হইতে অনেক তরঙ্গ উঠিল। সেজদাদা মহাশয়ের সংবর্ধনা সভা। আমার কি দূরে থাকা উচিত? আমি সেই দিনই অপরাহ্নে একটু আগে বিজ্ঞান কলেজে তাঁহার সঙ্গে দেখা করিলাম ও ঐ দিন ঐ সময়ে তাঁহার নিকট থাকিব বলিয়া মত প্রকাশ করিলাম। তিনি বলিলেন—"ঐদিন ঐ সময়ে আমার একটি সভায় যাইতে হইবে। সেখানে তুই গিয়া কি করবি ও বুঝবি?" আমি বলিলাম, "সভায় বেয়ারারা থাকিবে। আমি সভার গুরুত্ব না বুঝিতে পারিলেও তাহাদের মত উপস্থিত থাকিব। বিশেষতঃ বি. এস্-সি. তৃতীয় বার্ষিক ছাত্রেরা যদি আসে তবে আমরাই বা উপস্থিত থাকিব না কেন? উত্তরে তিনি বলিলেন, "তুই কি পড়িস? কোথায় পড়িস?" প্রত্যুত্তরে জানাইলাম "আমি উত্তর কলিকাতার স্বনামধন্য মিশনারী কলেজের তৃতীয় বার্ষিক কলা বিভাগের ছাত্র।" তিনি আমায় তৎক্ষণাৎ বলিলেন, "রসিককে ডেকে আন।" আমি সুবিখ্যাত পণ্ডিত রসিকলাল দত্তকে চিনিলাম না।

ডক্টর দত্ত উপস্থিত হইলে, সেজদাদামহাশয় বলিলেন, "রসিক তোমাদের জন্য আমি ভাইপো ত্যাগ করিছি, ভাইঝি ত্যাগ করিছি। ভাস্কর ও ভাস্করীদের ত্যাগ করিছি। এটি আমার নাতি। দাদার বড় মেয়ের বড় ছেলে। ও ছুটে ছুটে আমায় দেখতে আসে। কিছুতেই আমায় ছাড়তে চায় না। ও বলে, আগামী সভায় তোমরা কিচ্ছিন্দ্যা সমাজের একদলকে নিমন্ত্রণ করিয়াছ। উনি অন্য দলের লোক। ওরা নিমন্ত্রণ পান নাই। তাই এই অভিযোগ। তুমি একটা ব্যবস্থা করো।" ডক্টর দত্ত সানন্দে আমায় লইয়া স্থানান্তরে যাইতে উদ্যত। আমি সেজদাদামহাশয়ের সম্মুখে বলিলাম, "আমি ডারউইনের কাছে এবং তাঁহার নিকট আমার দাবী।" তিনি ইঙ্গিতে আমায় ডক্টর দত্তকে অনুসরণ করিতে বলিলেন।

সেই সভায় আচার্য রায় বলেন, “আপনারা যে স্নেহপূর্ণ ভাষণে আমার উল্লেখ করিয়াছেন, তাহার উত্তর দিতে আমার ভাষা আজ নির্বাক। আমার জীবনপ্রভাতে দেখি যে, বিজ্ঞানের সমসাময়িক পত্রিকায় জাপান মৌলিক গবেষণার প্রবন্ধ প্রকাশ করিতেছে। আমাদের দেশের ছেলেরা তখনও শুধু পাশ্চাত্য বিজ্ঞানে শিক্ষার্থী মাত্র। আমার আশা কতদিনে ও কিরূপে আমাদের ছাত্রসমাজ প্রসন্ন কৃতিত্বে মৌলিক গবেষণায় পাশ্চাত্য বৈজ্ঞানিকদের সমপর্যায়ে আসিবেন। আমার সে আশা ফলবতী হইয়াছে। মেঘনাদ, নীল-রতন, জ্ঞান ঘোষ, জ্ঞান মুখোপাধ্যায় ও আরও আমার অনেক কৃতী ছাত্র আমার সে আশা পূর্ণ করিয়াছেন। পদ্রুগর্বে গ্রীক মাতা নায়োবি যেমন দেবতাদের হিংসাস্থল, আমার ছাত্রগণ যদি আমার ছাত্র না হইতেন, তবে তাহাদের প্রত্যেককে আমি ঈর্ষা করিতাম।”

একদিন কথাপ্রসঙ্গে তিনি বর্তমান লেখককে “মূর্খ” বলেন। ইহাতে আমি আপত্তি করি। আমি বলি, “তিনি যে কোন পৃথিককে ডেকে যদি ডি. এস্-সি. উপাধি দেন, আসমুদ্র হিমাচলের সকল বিশ্ববিদ্যালয় তাহা স্বীকার করিবে। কবি কে জানিলে, সামান্য লোকও তাহার কাব্যরসের মাধুর্য বোধে, আর আমি আজন্ম আপনাকে দেখিলেও আমি মূর্খ?” তিনি বলেন, “তুই একজন এন, পি, পি, (না পড়ে পণ্ডিত) ও কামস্কাটকা বিশ্ববিদ্যালয় তোকে এ উপাধি দিল।” “সুদূর অখ্যাত কামস্কাটকা বিশ্ববিদ্যালয়ের উল্লেখ তাহার রসজ্ঞ মনের অভিব্যক্তি।

আচার্যদেব ও তাহার ভ্রাতৃগণের ও বৌদিদের সহিত যে অচ্ছেদ্য সম্বন্ধ আমি তাহাদের ঘরে লালিত-পালিত, তাহা চিরকালই আমার মনে বহুদিনের বহু ছোট-খাটো ঘটনার মধুর স্মৃতি আনিয়া দেয়। বাঙ্গালীর জীবনদর্শনে এই বৈজ্ঞানিক রূপে, রঙে, রসে ও উদ্দীপনায় বাঙ্গালীজীবনে ও ছাত্রসমাজে নূতন প্রেরণা দিয়াছেন। মৃত্যুর কয়েকদিন পূর্বে প্রস্তাবিত মাধ্যমিক শিক্ষা-পরিষদ সম্বন্ধে জনকল্যাণের জন্য তাহার তাঁর সমালোচনা স্মরণীয়।

কবি রবীন্দ্রনাথের ভাষায় বাঙ্গালার এই ‘সর্বজনবরণ্য’ সন্তান বাঙ্গালীর ব্যবসায়ের ও আত্মনির্ভরতার প্রতি বিমুখতা তাহাকে যে দিন দিন অগ্ন্যভাবে শীর্ণজীর্ণ ও অনশনে ক্ষীণতনু করিয়াছে এই সতর্কতা বহুবার ঘোষণা করেছেন; তাহা আমাদের আজও মনে পড়ে। বাঙ্গালীর জীবনে আত্মরক্ষার্থে বাঙ্গালীকে যিনি সংহত হইতে বলিয়াছেন, আজ শতবার্ষিকী উৎসবে ভুলদৃষ্টিত বাঙ্গালীর তাহাই স্মরণীয়।

তাঁহার অন্যতম সেবকানুসেবকরূপে স্নেহপুষ্ট দুঃসাহসের সহিত তাঁহার বহু কার্যকলাপের নীরব দর্শক থাকিয়াও তাঁহার প্রতি অনাদর করিয়াছি। তাই আজ সেই ভীষ্মপ্রতিম পিতামহের তর্পণে বলি :

“যচ্চাবহাসার্থমসংকৃতোহসি বিহারশয্যাসন ভোজনেষু।

একোহথবাধ্যচ্যুত তৎসমক্ষং তৎ ক্রময়ে স্বামহমপ্রমেয়ম্ ॥”

(হে অচ্যুত! আহার, বিহার, শয়ন, উপবেশনকালে একা অথবা অন্যজনসমক্ষে অচিন্ত্যপ্রভাব তোমার যে অমর্যাদা করিয়াছি, তাহার জন্য ক্ষমা প্রার্থনা করি।)

আর আমার নিজের প্রতি বলি :—

“বিদায় করেছ যারে নয়ন জলে।

এখন ফিরাবে তারে কিসের ছলে ॥”

সেজদাদামহাশয়ের সম্বন্ধে দু’একটি কথার সমাবেশে আমি যথাসম্ভব তাঁহার বিশাল ব্যক্তিত্বের ছবি সামান্যমাত্র লেখনীর তুলিকায় পরিস্ফুট করিতে চেষ্টা করিয়াছি। আমার একমাত্র কথা :

“সেই প্রেমস্মরি সেই প্রেমবলে, পঙ্গু আমি
লঙ্ঘন সুমেরু।”

আচার্য স্মরণে

শ্রীভবশচন্দ্র রায়

১৯৩০ খৃষ্টাব্দে রসায়ন বিভাগের ছাত্র হিসাবে বিজ্ঞান কলেজে প্রবেশ করি। আচার্য-দেবের সঙ্গে সাক্ষাৎ পরিচয় হয় তার পর বৎসর যখন তাঁরই অধীনে গবেষণা করব বলে প্রার্থনা জানাতে যাই। মনে আছে,—তিনি এ বিষয়ে আমার যোগ্যতা পরীক্ষার জন্য আমাকে প্রশ্ন করলেন,—“আচ্ছা বলত সান-ইয়াং-সেন নদী কোন পাহাড় থেকে বেরিয়ে কোন সমুদ্রে পড়েছে?” ধীরে ধীরে উত্তর দিলাম—“সান-ইয়াং-সেন নদীর কথা শুনিনি নি, তবে সান-ইয়াং-সেন ছিলেন চীনের স্বাধীনতার নেতা এটা জানি।” বললেন—“বেশ বেশ।” এরপর আরও একটা প্রশ্ন করলেন—“রচিব এ মধুচক্র”—“এর পরের কথাগুলি বলতে পারিস?” বললাম—“পারি।” বললাম। খুব খুসী হলেন।

এর পরই হঠাৎ বললেন—“খোলতো গায়ের শার্ট আর গেঞ্জি, খালি গায়ে একবার দাঁড়া দেখি!” অনেক ইতস্ততঃ করে খালি-গা হলাম। হঠাৎ চেয়ার থেকে উঠে এসে চুল ধরে একটা ঝাঁকা দিয়ে বললেন—“এঃ একেবারে জীর্ণ-শীর্ণ। আমার কাছে কাজ করবি, মার খাবি কি করে? যা এখন, বিকেলে আসিস—অনেক খাবার আছে।”

ফিরে এলাম, এবং সাড়ে চারটার সময় নিজে এসে ডেকে নিয়ে খাবার দিলেন, চাটি মুড়ি আর একখণ্ড লেডিকেনি। এরপর ব্যক্তিগত পরিচয়, কি করি, বাড়ীতে কে আছে, কোথায় থাকি, কি ভাবে সময় কাটাই, পড়ার বই ছাড়া সাহিত্য-ইতিহাস কিছ পড়ি কিনা,—এমনি টুকটাকি অনেক কথার পর আসল কথাটা পাড়লেন। বললেন—“তুই যা পদ্বিন বাবুর (Dr. P. B. Sarkar) কাছে, তাঁর সঙ্গে কাজ করবি।”

এইভাবে আচার্যদেবের সঙ্গে যোগসূত্র স্থাপনের যে সুযোগ এলো, সেটা আমার সৌভাগ্যক্রমে পরবর্তী তের বছর ধরে চলছিলো। এর পরে আমি তাঁর সংসারের একজন হবারও সুযোগ পেয়েছিলাম।

নিজে তিনি চিরকুমার। কিন্তু তাঁর কাছে সব সময় আমার মত আট দশটি ছেলে থাকতো। তারা আচার্যদেবের কাছেই থাকত, তাঁর ওখানেই খেত, আর বিজ্ঞান কলেজের বারান্দায় শুয়ে রাত কাটাত। দিনের বেলায় কলেজের ঘরে ঘরে যার যার নিজের কাজ কর্ম নিয়ে থাকতো। মধ্যে মধ্যে আচার্যদেব প্রত্যেকের কাছে যেয়ে খোঁজ নিতেন কে কি কাজ করেছে, কল্প কি অসুবিধা এই সব। হয়তো কোন যন্ত্রপাতির অভাবে কাজ কর্মে অসুবিধা হচ্ছে, একবার কোন মতে কথাটা তাঁর কানে তুলতে পারলেই হ'ল। বাস, যেখান থেকে হোক যন্ত্রপাতির ব্যবস্থা হয়ে যাবে। কলেজ থেকে যদি সম্ভব না হয় নিজের পেনশনের টাকা থেকে নিজেই দিতেন সে সব কিনে। এই ভাবে ছেলের দল কাজ করে যেতো। তাদের কাজ হয়ে যখন কোন কিছ ফল পাওয়া গেল তখন তাঁর কি আনন্দ, কি উল্লাস! যাকে পান তাকেই ডেকে বলবেন—“দেখ, অমুক এই কাজটা করেছে, কি খেটেছে—” ইত্যাদি।

আচার্যদেবের সংসারে যে ছেলেরা থাকতো তাদের তিনি রীতিমত সংসারের কাজ করতে বাধ্য করতেন। কাউকে ঘর ঝাঁট দিতে হত, কেউ পাক করতো। কেউবা পরিবেশন করতো। নিজে তিনি জীবনের শেষ দিন পর্যন্ত নিজের কাপড় কাচতেন, নিজে মেলে দিতেন, আবার নিজেই সেটা যথা সময়ে গুছিয়ে তুলে রাখতেন। কোন দিন এর ব্যতিক্রম হ'তে দেখি নি। একটি কাজের লোক ছিল, সে পাক করতো এবং সংসারের কাজকর্ম করত। মাঝে মাঝে তিনি তাকে গোপনে আগাম মাইনে দিয়ে ছুটি দিয়ে দিতেন। তখন সংসারে যারা থাকতো, তাদেরকেই পাক-শাক করতে হত। এইভাবে তিনি এম. এ., এম. এস্-সি.



পাশ ছেলেদের সংসারের কাজ শেখাতেন, ঠিক যেমন করে মা সংসারের বড় ব্যবস্থা মেয়েদের কাজ শেখান।

দীর্ঘদিন আচার্যদেবের সঙ্গে কাটিয়েছি। তাঁর অসীম স্নেহ উপভোগ করেছি—দেখোছি মানুষ-প্রফুল্লচন্দ্র—বিজ্ঞানী-প্রফুল্লচন্দ্র, দেশহিতৈষী-প্রফুল্লচন্দ্রের চেয়ে অনেক বড়। ১৯৩৯ সালে ডিসেম্বর মাসে একটি দ্বিতীয় শ্রেণীর কামরায় আচার্যদেবের সঙ্গে বাঙ্গালোর যাচ্ছিলাম। রিজার্ভ-কুপে, তাই অন্য কোন যাত্রী সে গাড়ীতে নেই। অন্য দুইটি বিভিন্ন কামরায় ছিলেন স্বর্গীয় ডাঃ শ্যামাপ্রসাদ মুখার্জি, আর স্বর্গীয় ডাঃ প্রমথ ব্যানার্জি। সন্ধ্যায় মাদ্রাজ মেলে হাওড়া থেকে রওনা হ'লাম—রাতের খাবার সঙ্গে ছিল, যথাসময়ে খাওয়া-দাওয়া শেষ করে ঘুম দেওয়া গেল। পরদিন সকালে একটা বড় স্টেশনে ১০/১৫ মিনিটের জন্য গাড়ী থামল, আচার্যদেব প্লাটফর্মেরে নেমে পায়চারি করছেন—ডাঃ মুখার্জি আর ডাঃ ব্যানার্জিও তাঁর সঙ্গে। আচার্যদেব শ্যামাপ্রসাদবাবুকে বললেন—আমাদের দুপুরের খাবার একটা ব্যবস্থা করে দিতে। আচার্যদেবের নিজের জন্য কিছুই দরকার ছিল না, তবে আমার জন্যই তাঁর যা কিছু দৃষ্টিশক্তি। শ্যামাপ্রসাদবাবু সঙ্গে সঙ্গে গার্ডকে ডেকে বলে দিলেন একটা মিল যোগান দিতে। যথাসময়ে মিলটি পেলাম এবং খাওয়া হয়ে গেলে রেলের লোকেরা এসে টিফিন কেরিয়ারটি নামিয়েও নিয়ে গেল। বেলা একটা আন্দাজ আচার্যদেব বললেন—“ওরে এই বেলা শ্যামাপ্রসাদকে বলে আয় রাতের খাবার একটা ব্যবস্থা যেন করে রাখে।” গার্ডকে দেখে, তাকে বলে দিলাম রাতের খাবারের কথা এবং গার্ড জানাল যথাসময়ে আমাদের টিফিন কেরিয়ারে পৌঁছে দেবার ব্যবস্থা হবে। আচার্যদেব এতে সম্পূর্ণ নিশ্চিত হতে পারলেন না। আরও তিন চারবার তিনি আমাকে বললেন—“যা শ্যামাপ্রসাদকে বলে আয় তোর খাবার কথা।” অবশেষে তাঁকে আমি একটু স্বাক্ষর সঙ্গেই বললাম—“দেখুন আমার তিরিশ বছর বয়স হল। আমি বিজ্ঞান কলেজে চাকরি করি। আমি যেয়ে ভাইস-চ্যান্সেলার ডাঃ শ্যামাপ্রসাদ মুখার্জিকে বলব—আপনি দয়া করে আমার রাতের খাবার ব্যবস্থা করুন—এটা কি করে হয়—বিশেষ আমি তো গার্ডকে বলেছি এবং গার্ড ব্যবস্থা করে জানিয়েছেনও।” আচার্যদেব আর দ্বিতীয়বার এ-সম্বন্ধে কোন কথা তুললেন না। ব্যাপারটা মিটে গেল দেখে আমিও স্বস্তির নিঃশ্বাস ফেললাম।

বেলা ৪টা আন্দাজ পিটাপুরম স্টেশনে এসে গাড়ী দাঁড়াল। আমাকে কি একটা কাজের ফরমাসেস দিয়ে আচার্যদেব প্লাটফর্মেরে নেমে পড়লেন পায়চারি করতে—এগিয়ে চললেন পিছন দিকে প্রথম শ্রেণীর কামরার দিকে। আচার্যদেব যখন বেশ খানিকটা এগিয়ে গেছেন তখন হঠাৎ একটা হুইশ্‌ল দিয়ে গাড়ী দিল ছেড়ে, আচার্যদেব রইলেন প্লাটফর্মেরে পড়ে। কিন্তু কি আশ্চর্য, আটাত্তর বছরের বৃদ্ধ হঠাৎ পড়ি কি মরি করে দৌড়ে এসে কামরার পা-দানিতে দাঁড়িয়ে হাতল ধরে ঝুলেতে লাগলেন। আমি হতভম্ব! তাড়াতাড়ি আচার্যদেবকে টেনে ধরলাম যাতে দুর্ঘটনা না ঘটে। সারা প্লাটফর্মের লোকজন হাঁ-হাঁ-চীংকার করে উঠল। কয়েক গজ এগিয়ে ট্রেন গেল থেমে।

শ্যামাপ্রসাদবাবু, ডাঃ ব্যানার্জি ছুটতে ছুটতে এসে কামরায় ঢুকলেন এবং আচার্যদেবকে বললেন—“এ আপনি কি করছিলেন?” আচার্যদেব দম নিয়ে বললেন “জান আমি খুলনা জেলার লোক, ছোটবেলা তর তর করে নারকেল গাছে চড়তাম। তা ছাড়া একবার পিণ্ডিত মদনমোহন মালব্যের সঙ্গে যাচ্ছিলাম, সেবার এইরকম হাতল ধরে ঝুলে প্রায় ৩।৪ মাইল গিয়েছিলাম।” শ্যামাপ্রসাদবাবু অনুযোগ করলেন, “কিন্তু কেন এ risk নিচ্ছিলেন? এটা অত্যন্ত অন্যায়” ইত্যাদি। আচার্যদেব চুপচাপ সব অনুযোগ হজম করেছিলেন। হঠাৎ বললেন: “কি জান—এই ছেলেটার জন্য; রাতের খাওয়ার ব্যবস্থার জন্য তোমাকে যেয়ে বলতে ওর লজ্জা করে—উনি রাতে উপোস করবেন তবুও লজ্জায় তোমাকে বলবেন না—রাত উপোসে হাতী শুকোয়—এটা ওকে কিছুতে বোঝাতে পারলাম না।”—তখন লজ্জা পেয়েছিলাম; আজ ভাবি কি স্নেহ, কি অনুকম্পা, কত বড় এই হৃদয়!



কত ছোট ছোট ব্যাপারে তাঁর অপরিসীম মহত্ব দেখেছি তার কয়টাই বা বলব! আচার্য প্রফুল্লচন্দ্র ছিলেন পল্লীদরদী। বাঙ্গলার শ্যামল পল্লীতে তাঁর জন্ম। কিন্তু বাল্যকালেই তিনি শহরে আসেন, সারা জীবন তাঁকে শহর বাস করতে হয়েছে, তবুও পল্লীকে তিনি ভোলেন নাই।

আচার্যদেব বিশ্বাস করতেন বাঙ্গলার জীবনীশক্তি রয়েছে পল্লীগামে, শহরের হৈ-হুজোড়ের মধ্যে যতই চাকচিক্য থাক না কেন বাঙ্গলাদেশকে বৃদ্ধিতে হলে বাঙ্গলার পাড়াগাঁকে ভালবাসতে হবে। তিনি বলতেন : “ইট-কাঠের এই শহরে যাদের জীবন কাটে তারা হচ্ছে টবের ফুলগাছ। তাতে সৌখীন ফুল দু-একটা হতে পারে কিন্তু তাজা আর প্রচুর ফুল এতে পাওয়া যাবে না।” নিজেকে তিনি নিয়ামিত ভাবে গ্রীষ্মের ছুটিতে দেশে যেয়ে একটানা তিন চার সপ্তাহ থাকতেন এবং অত্যন্ত সহজভাবে পল্লীর লোকদের সাথে মিশতেন। রোগা লিকলিকে চেহারা, পরনে একটা খন্দরের লুঙ্গি, গায়ে খন্দরের একটা হাতকাটা পাঞ্জাবী, হাতে একটা লম্বা লাঠি নিয়ে প্রত্যহ ভোরে আর সন্ধ্যায় যখন তিনি খোলা মাঠে ছোটোছুটি করতেন, তখন কার সাধ্য বলে যে একজন বিশ্ববিখ্যাত বৈজ্ঞানিক এই প্রফুল্লচন্দ্র।

একবার তিনি পূজার সময় পাবনা জেলার একটা পল্লীগামে গিয়েছেন, সেখানে ৩।৪ দিন থাকবেন। গ্রামখানি নদীর ধারে। নদী তখন দুকূলভরা। তীরে সামান্য পায়ে চলার মত একটু মাটি, তার পরেই গ্রামের হাট। নদীতে একটা নৌকার তিনি থাকেন, আর ভোর সাড়ে চারটার এবং সন্ধ্যা পাঁচটার সময় লুঙ্গি পাঞ্জাবী পরে খালি পায়ে লাঠি হাতে হাটের পাশে সরু পথটার উপর দিয়ে দৌড়াদৌড় করেন। ঐ চেহারা, চুলদাড়ি উস্কা খুস্কা, কেউ তাঁকে গ্রাহ্যের মধ্যেই আনে না। তিনি জেলেদের সঙ্গে, চাষীদের সঙ্গে সুখ-দুঃখের গল্প করেন সোজা বাঙ্গলায়। বিলেত-ফেরৎ কিন্তু কথার মধ্যে একটাও ইংরাজী শব্দ নেই।

জেলা ম্যাজিস্ট্রেট একজন বাঙ্গালী ভদ্রলোক। তিনি সংবাদ পেয়েছেন আচার্যদেব ঐ গ্রামে এসেছেন এবং তিন চারদিন থাকবেন। তিনি ত সারারাত তাঁর ষ্টীমার চালিয়ে পরিবারের ছেলেমেয়ে নিয়ে হাটবারে বেলা পাঁচটা আন্দাজ গ্রামে এসে হাজির। তখন জমজমাট হাট, ম্যাজিস্ট্রেট সাহেবের ষ্টীমার এসে মাঝ নদীতে নোঙ্গর করতেই হাটশুদ্ধ লোক এসে তীরের উপর দাঁড়াল। আচার্যদেব তখন তাঁর সান্ধ্য ভ্রমণে ব্যস্ত। ষ্টীমার বা তার আরোহীদের দিকে তাঁর কোন লক্ষ্যই নেই। এদিকে নোঙ্গরকরা ষ্টীমার থেকে সপরিবারে নেমে এলেন জেলা ম্যাজিস্ট্রেট। একখানা ছোট বোটে কূলে এসে ছুটে যেয়ে আচার্যদেবকে প্রণাম। তিনি ত অবাক! বল্লেন, “সে কি!”

“আজ্ঞে আমি আপনার ছাত্র—অমুক সালে প্রেসিডেন্সী কলেজে আপনার কাছে পড়েছি”, বল্লেন ম্যাজিস্ট্রেট সাহেব। “তা বাপু বেশ করেছ, কিন্তু তোমার এ কাজটা ভাল হল না।” “কেন স্যার?”

“এই দেখ আজ দুদিন এখানে আছি; এরা ভেবেছে আমি কোন মৌলবী কি মৌলানা। কিন্তু তুমি ত প্রণাম করে খালাস হলে। এরা বুঝল আমি ম্যাজিস্ট্রেটের চেয়েও বড় হাকিম। এরা আমার কাছে এবার কত কি চাইবে তার কি হবে?” ম্যাজিস্ট্রেট সাহেব বললেন, “বলুন কি করতে হবে?” আচার্যদেব সঙ্গে সঙ্গে বললেন: “বেশ ত—এখানে একটা হাসপাতাল করে দাও, ম্যালেরিয়ায় গ্রামটা উচ্ছন্ন যাচ্ছে।” বলতে দোষ নেই সেদিন থেকে ৬ মাসের মধ্যেই গ্রামে একটা দাতব্য চিকিৎসালয় স্থাপিত হয়ে গেল। এই হল পল্লীদরদী প্রফুল্লচন্দ্রের জীবনের ছোট একটা ঘটনা। এর থেকে বোঝা যায় মানুষ প্রফুল্লচন্দ্রকে।

১৯২২ সালে ভীষণ বন্যায় সমস্ত উত্তরবঙ্গ ভেসে গেল। আচার্যদেব তাঁর সহযোগীদের নিয়ে ঐ বন্যায় গ্রামবাসীদের সাহায্য করতে এগিয়ে এলেন। বন্যার জল নেমে গেল, ধীরে ধীরে পল্লীবাসীরা সামলে নিল। কিন্তু আচার্যদেব বললেন : “কাজ ত এখানেই শেষ করলে চলবে না। গ্রামবাসীদের এই বিপদেই শেষ বিপদ নয়, তাদের মধ্যে কুটির-শিল্প

গড়ে তুলে তাদের হাতে দুটো বাড়তি পরিসা দেবার ব্যবস্থা করতে হবে।” গড়ে উঠল আটাই গ্রামকে কেন্দ্র করে একটা সংস্থা।

১৯৪৪ সালে মে-মাসের শেষ দিকে ভারত সরকারের শ্রম-বিভাগে একটি চাকরি পাই। ঠিক চাকরির চেষ্টা করব বলে চাকরির দরখাস্ত করি নি। একটা হুজুগের বশে কয়েক বন্ধু মিলে নানা জায়গায় চাকরির দরখাস্ত করছিলাম। আমার আবেদন মঞ্জুর হলো। চাকরিও পেলাম। কাজটা ছিল রাজশাহী বিভাগের সমস্ত কারিগরি বিদ্যালয়-গুলিতে শিক্ষার্থীদের ভর্তি করা এবং তাদের সুখ-সুবিধার উপর লক্ষ্য রাখা। কথা ছিল—রংপুর শহরে হবে আমার অফিস, আমার নতুন অফিস। দীর্ঘ ১৪ বৎসর পরে এই প্রথম আচার্যদেবের সংগ ছেড়ে দূরে যাবার সম্ভাবনা দেখা দিল। আচার্যদেব রুগ্ন, শয্যাশায়ী, চলে ফিরে বেড়াতে পারেন না। বিশ্বস্ত ভৃত্য মুরারী মন্ডল রোজ প্যারাম্বুলেটেরে করে বিজ্ঞান কলেজের বারান্দায় তাঁকে ঘুরিয়ে আনে ও সেবা-শুশ্রূষা করে। এই অবস্থায় আচার্যদেবকে ছেড়ে দূরে যেতে হবে ভেবে সত্যি একটা মানসিক যন্ত্রণা ভোগ করছিলাম। সবচেয়ে মুস্কিল ছিল যে চাকরির দরখাস্ত করার সময় থেকে চাকরি পাওয়া পর্যন্ত কোন অবস্থাতেই তাঁকে এ-কথাটা বলতে পারি নি যে আমি অন্যত্র চাকরি খুঁজছি বা খুঁজবো। এখন কি করে তাঁকে বলি যে চাকরি পেয়েছি—আমি চলে যাব?

অবশেষে অনেক চিন্তার পর মনস্থির করে তাঁর কাছে কথাটা পাড়লাম। দিন-টা ছিল ২৭শে মে। সকালে মুরারী যখন তাঁকে প্যারাম্বুলেটেরে করে ঘুরাচ্ছে,—তখন কথাটা তাঁকে বলে ফেললাম। তাঁর উত্তরটা আজও মনে পড়ে। প্রথমে তিনি বেশ খানিকটা রসিকতা করলেন—বালকসুলভ রসিকতা। বললেন—“তা বেশ তো, যা না। কোথায় থাকবি?” আমি বললাম—রংপুর। বললেন—“সে তো অনেক দূরে রে! আর আমার কি—আমার তো শেষ হয়েছে এলো! ওখানে থাকবি। একদিন খবরের কাগজে একটা ছবি দেখাবি—তার নীচে লেখা থাকবে ‘প্রফুল্লচন্দ্র রায়! খবরের কাগজ দেখে তুই ভাববি—আরে, এ বড়ো তো চেনা-চেনা, কোথায় যেন দেখেছি, কোথায় যেন দেখেছি! বেশ কিছুক্ষণ চিন্তার পর তোর মনে পড়বে আমাকে। তখন বলবি—আরে হ্যাঁ, এতো সেই বড়ো, ঐ-যে দিন-রাতি গাল দিত, চরকি ঘুরাতো আর খাটাতো!’” আচার্যদেব চুপ করলেন। সমস্ত মন আমার দুঃখ-বেদনায় ভরে গেল। এ রকম একটা জবাব তাঁর কাছে পাব, এটা ছিল কল্পনার বাইরে। এ-রকম হতে পারে—এটা তিনি কি করে ভাবলেন?

জানি না, আমার মনের ভাবটা মুখে ফুটে উঠেছিলো কিনা। একবার মুখের দিকে চেয়েই তিনি বললেন—“তা বেশ তো। তোর ডিউটি কি হবে?” বেশী বলতে হলো না। টেকনিক্যাল ট্রেনিং শুনাই তিনি মুখের হয়ে উঠলেন—“বা, বেশ কাজ পেয়েছিস! তবে কি জানিস, বেশী বয়সে সরকারী চাকরিতে ঢুকাছিস, অনেক অসুবিধা হবে। একটা উপদেশ মনে রাখিস। চাকরিতে কখনও পরোয়া করিস না। যদি করিস, তাহলে ইজ্জৎ বা চাকরি—দুটোর একটাও বাঁচতে পারবি না। কিন্তু যদি তা’ না করিস—তবে চাকরি গেলেও যেতে পারে, ইজ্জৎটা বাঁচবে।” তারপর অবশ্য আরও অনেক কথাই তিনি বললেন। নতুন চাকরিতে যাবার জন্য যথেষ্ট উৎসাহ আমাকে দিলেন। যখন শুনলেন—চাকরিতে যোগ দিয়ে প্রথম তিনমাস আমি কলকাতাতেই শিক্ষানবীশ থাকবো, তখন পরদিনই যাতে আমার চাকরিতে যোগ দেওয়া সম্ভব হয়—তা’র জন্য অধ্যাপক প্রফুল্লচন্দ্র মিত্রকে নিজে থেকেই অনুরোধ জানালেন আমাকে তাড়াতাড়ি রিলিজ (release) করে দিতে।

আচার্যদেব আজ নেই। আমিও আমার সরকারী চাকরি-জীবনের শেষ অঙ্কে এসে পৌঁছেছি। সরকারী চাকরি সম্পর্কে তাঁর উপদেশের মর্যাদা কতখানি রাখতে পেরেছি—জানি না। তবে যে মহাপুরুষ এই বাণী আমাকে দিয়েছিলেন, আজ তাঁর শততম জন্ম-জয়ন্তী উপলক্ষে সেই বাণী আমি পৌঁছে দিলাম বাঙালীর ঘরে ঘরে।

আচার্য স্মরণে

শ্রীনিমাইদাস রায়চৌধুরী

আচার্য প্রফুল্লচন্দ্রের জন্মশতবার্ষিকী উপলক্ষে বহু সুধীর রচনা সম্ভারে একটি বৃহৎ স্মারক গ্রন্থ প্রকাশের ব্যবস্থা হয়েছে। এ অবস্থায় তাঁহার স্মৃতির প্রতি শ্রদ্ধাজ্ঞাপনে কিছু নিবেদন করার ইচ্ছা করি। আচার্যদেব ৮৩ বছর বয়সে দেহ রক্ষা করেন। প্রথমাবস্থা ও জীবনের শেষ দুই বৎসর বাদ দিলেও খাঁটী ৬০ বৎসর ধরে বাঙালায় বহু প্রতিষ্ঠান সৃষ্টি করে, বিভিন্ন প্রবন্ধাদিতে, বক্তৃতায়, নিজ উপস্থিতিম্বারা এবং শেষে “অন্নসমস্যায় বাঙালীর পরাজয় ও তাহার প্রতিকার” নামক গ্রন্থ প্রণয়ন করে দেশের বিবিধ সেবা করেন। শেষোক্ত গ্রন্থের ২৪টি বিভিন্ন প্রবন্ধে তিনি তাঁহার আজীবনলব্ধ জ্ঞানসম্ভার মাতৃজাতিকে—যাঁহারা ভবিষ্যৎ জাতির জননী তাঁহাদের উদ্দেশ্যে—উৎসর্গ করেন। এই পুস্তক বিশেষ করিয়া বাঙালার যুবকদের উদ্দেশ্যে লিখিত। ১৯০২ সালে তাঁহার লিখিত Life and Experiences of a Bengali Chemist নামে আত্মজীবনী প্রকাশিত হয়। এই দুই গ্রন্থের প্রকাশের পর আচার্যদেব সম্বন্ধে নূতন কিছু বলার প্রচেষ্টা বিশেষ দুঃসাধ্যকর ব্যাপার। কারণ বহুক্ষেত্রে ইহা গগ্গাজলে গগ্গাপূজা বা চর্বিচর্চণ রূপ পরিগ্রহণ করে। লেখক তাঁহার কথিত বহু-বাণী সম্মেলনে এবং প্রত্যক্ষ সাহচর্যে যে অভিজ্ঞতা সংগ্রহ করেছে—তার দ্বারা তাঁহার জীবনের বহু অপ্রকাশিত ঘটনার উপর আলোকপাত করতে প্রয়াসী হচ্ছে।

আচার্য প্রফুল্লচন্দ্র বাঙলাদেশে ঊনবিংশ শতাব্দীর অন্যতম মহামানব, ইহা সর্ববাদী-সম্মত। ষোড়শ শতাব্দীতে চৈতন্যদেবের এবং অষ্টাদশ শতাব্দীতে রাজা রামমোহন রায়ের আবির্ভাব না হইলে বাঙলা দেশের যে কি দুর্দশা ঘটতো তা ভাষায় প্রকাশ করা যায় না। ঠিক একই ভাবে বলা যায় যে আচার্যদেবের ঊনবিংশ শতাব্দীতে জন্মলাভ ও যেন দৈব-নির্দেশিত।

ইংরাজ কবি Longfellow-র অমরবাণীর প্রতিধ্বনি করে বাঙলার কবি লিখেছেন :—

মহাজ্ঞানী মহাজন, যে পথে করে গমন,
হয়েছেন চির স্মরণীয়;
সেই পথ লক্ষ্য করে, স্বীয় কীর্তিধ্বজা ধরে
আমরাও হব বরণীয়।

বাঙলার ঊনবিংশ শতাব্দী একটা বিরাট স্বর্ণময় যুগ বলা যেতে পারে। রাজা রামমোহন রায়ের শেষ রশ্মি নিয়ে ঈশ্বরচন্দ্র বিদ্যাসাগর, বঙ্কিমচন্দ্র, মাইকেল মধুসূদন, কবি নবীনচন্দ্র সেন ও হেমচন্দ্র বন্দ্যোপাধ্যায়, গিরিশচন্দ্র ঘোষ, রাষ্ট্রগুরু সুরেন্দ্রনাথ ও বাম্পী বিপিন চন্দ্র পালের মত দিক্‌পালগণের প্রভাব তাঁহার জীবনের উপর যে বিশেষ রেখাপাত করেছিল এ বিষয়ে নিঃসন্দেহ। কিন্তু যাঁহার নাম ও বাণী আচার্যদেবের জপ-মালা ছিল সেই মহামানব শিবনাথ শাস্ত্রী আচার্য প্রফুল্লচন্দ্রের মন্ত্রগুরু ছিলেন বলিলে অত্যাতি হয়না। দিনের বহুসময়ে তিনি শাস্ত্রী মহাশয়ের কথা স্মরণ করতেন। স্বর্গীয় রমেশচন্দ্র চক্রবর্তীর কাছে শোনা গেছে যে আচার্য প্রফুল্লচন্দ্রের উপর শাস্ত্রী মহাশয়ের অগাধ বিশ্বাস ও ভরসা ছিল। আচার্যদেব যে কাজেই হাত দেবেন তাহাতে সাফল্যলাভ করবেন এ কথা শাস্ত্রী মহাশয় জোরের সঙ্গে বার বার বলতেন।

আচার্যদেব জন্মগ্রহণ করেন ১৮৬১ সালে খুলনার অন্তর্গত রাড়ুলী গ্রামে। নয়

বৎসর বয়সে শিক্ষার উদ্দেশ্যে তাঁহাকে কলিকাতায় আসতে হয়। এই পর্বের মধ্যে ও পরে বিদ্যালয়ের অবকাশে তিনি তাঁর নিজহস্তে বহু বৃক্ষরোপণ করে তার সেবা করে গেছেন এবং দেশে গিয়ে প্রতি বছরই তাদের যত্ন করতেন। এখনও আচার্যের বহু স্মৃতি বহন করে তারা বর্তমান আছে। ১৯২৭ সালে বারাণসীতে সর্ব এশিয়া শিক্ষা সম্মেলন (All Asia Educational Conference) প্রখ্যাত আনে বেসান্তের সভানেত্রীত্ব অনুষ্ঠিত হয়। উহারই অন্যতম ধর্মসভায় পৌরহিত্য করেন বাবু ভগবান দাস। সভার আলোচ্য বিষয় ছিল, "How to approach God", অর্থাৎ আমরা কিভাবে ভগবানের সান্নিধ্য লাভ করিতে পারি। সভার সর্ব-সম্মতিক্রমে গৃহীত হয় যে ঈশ্বর সান্নিধ্যলাভের প্রকৃষ্ট পথ বৃক্ষসেবা। আচার্যদেব তাঁর জীবনের প্রারম্ভেই এই সত্যের পূজারী হয়েছিলেন বলা যায়। আত্মজীবনীতে তাঁর এই সব পর্বের বহু ঘটনা বর্ণিত আছে।

ঈশ্বরচন্দ্র বিদ্যাসাগর, গুরুদাস বন্দ্যোপাধ্যায় প্রভৃতির জীবনে মাতৃভক্তির যেমন সুন্দর দৃষ্টান্ত পাওয়া যায় আচার্য প্রফুল্লচন্দ্রের সম্বন্ধেও তাহা সমভাবে বলা চলে। বার্ষিকোত্তম তাঁহার মায়ের কথা উল্লেখ করতে তিনি বিশেষ বিচলিত হয়ে পড়তেন দেখা গেছে। তাঁহার ভ্রাতা, ভগ্নী, ও আত্মীয়গণের প্রতি স্নেহ-ভক্তি চিরদিন অটুট ছিল। গ্রামের রাস্তাঘাটের প্রতি দৃষ্টি ও পল্লীর প্রতিবেশীদের সঙ্গে তাঁর নিবিড় সম্বন্ধ আজীবন বর্তমান ছিল। চিরজীবন গ্রীষ্মাবকাশে এবং অবসর পাইলেই স্বগ্রাম রাড়ুলিতে ও নিকটস্থ সাইহাটি প্রভৃতি পল্লীতে গিয়ে সেখানকার গ্রামবাসীদের অবস্থা ও দুঃখদুর্দশার বিবরণ লওয়া এবং সঙ্গে সঙ্গে তাহা নিরসন করার তিনি অগ্রণী ছিলেন।

১৯০০ সালে অর্থাৎ ৩৯ বৎসর বয়সে তাহার সমস্ত অর্জিত ও ভবিষ্যতের সম্ভাব্য অর্জেয় সম্পত্তি ট্রাস্টীদের হাতে সমর্পণ করেন। এডুকেশন সোসাইটি নামে একটি প্রতিষ্ঠান সৃষ্টি করে খুলনা জেলার নিরক্ষরতা দূর করার প্রয়াস করেছিলেন। যখন দেশে যেতেন পল্লীর ও তলিকটবর্তী গ্রামসমূহের পাঠশালার শিক্ষকদের পড়ুয়াসহ আহ্বান করে দিনের পর দিন খাওয়ানোর ব্যবস্থা করা ও শিক্ষকদের নতুন বস্ত্র ও অর্থ দিয়ে তাদের উৎসাহিত করা তাঁহার এক বিশেষ আনন্দকর আয়োজন ছিল। গ্রামবাসীরা এই দিনগুলির অপেক্ষায় থাকত।

১৯২০-২১ সালে খুলনা জেলা ঝড়ঝঞ্জায় বিধ্বস্ত হয়, ফলে দারুণ দুর্ভিক্ষের সৃষ্টি হয়। আচার্যদেব নিজে পদরজে রোজ ১০-১২ মাইল গ্রামের দুর্গম পথ অতিক্রম করে সাইহাটি, রাড়ুলি, কাটপাড়া প্রভৃতি বিভিন্ন দুর্ভিক্ষপ্রপীড়িত গ্রামে উপস্থিত হয়ে গ্রামবাসীদের দুঃখদুর্দশা লাঘব করেছিলেন। উল্লেখ করা উচিত যে সঙ্গে সঙ্গে সেই সব গ্রামে তাঁর চেষ্টায় বিদ্যালয় প্রভৃতি শিক্ষাপ্রতিষ্ঠানেরও উদ্ভব হয়েছিল।

আচার্য রায়ের গ্রামে রাড়ুলিতে প্রায় ৫০ বিঘার উপর কপোতাক্ষের তীরে একটি বিরাট স্কুল নির্মিত আছে। ইহার পশ্চাতেও আচার্য দেবের দান ও প্রচেষ্টা কতখানি তাহা না বলিলেও বৃদ্ধা যায়। তাঁহার একান্ত ইচ্ছা হয়েছিল যে ইহাকে একটি কৃষি-বিদ্যালয়ে রূপায়িত করা; কিন্তু নানা বাধাবিপত্তিতে সে ইচ্ছা আর পূরণ করা সম্ভবপর হয় নাই।

১৯৫৫ সালে দেশবন্ধু চিত্তরঞ্জন দাস দার্জিলিং-এ দেহত্যাগ করেন। সেই সময় আচার্য রায় ও মহাত্মা গান্ধী একই ট্রেনে খুলনা থেকে আসিতেছিলেন। গান্ধীজীর রাষ্ট্রনায়ক হিসাবে তাঁক্ষর দৃষ্টির পরিচয় পাওয়া যায় এই সময় ক্ষুদ্র একটি প্রশ্নে। তিনি আচার্য রায়কে দেশবন্ধুর শূণ্য স্থান পূরণের জন্য প্রশ্ন করেন যে—"What do you think of Sen Gupta?" আচার্য রায় ইহা পূর্ণ সমর্থন করেন। কৌতুহলী যুবক ও জনগণের জন্য প্রায় প্রতিটি স্টেশনে তাঁহাদের বিশেষ অসুবিধায় পড়িতে হয়। কোন স্টেশনে গান্ধীজীর দর্শনার্থী যুবকেরা আচার্য রায়কে দেখিয়া বলিয়া উঠে যে গান্ধীজীর তো দাড়ি নাই তবে ইনি কে? ইহার পর থেকে আচার্য রায় গান্ধীজীর সঙ্গে এক ট্রেনে ভ্রমণ না করার কৃতসংকল্প হন।

১৯২৩ সালে ফরিদপুরে দেশবন্ধুর সভাপতিত্বে কংগ্রেসের এক বিরাট অধিবেশন হয়। গান্ধীজীও এই সভায় উপস্থিত ছিলেন। এই অধিবেশনে সমাজ-শাখার বিশেষ সম্মেলনে আচার্যদেব পৌরহিত্য করিয়া ওজস্বিনী ভাষায় সমাজের অনুন্নত শ্রেণীর পক্ষ গ্রহণ করে তদানীন্তন সমাজপতিদের দৃষ্টিবিচ্যুতির যে সমালোচনা করেন তাহা বিশেষ উল্লেখযোগ্য। তাহার সেই চিরন্তন উক্তি—“কুকুর বেড়াল আস্তাকুড় থেকে এসে ঘরের ভেতর প্রবেশ করলে আমাদের মনে কোন নীচ ভাব জাগে না, তথাপি এই অনুন্নত শ্রেণীকে আমরা চিরদিনই অধম ও ঘৃণ্য মনে করে পদদলিত ও একঘরে রেখে সমাজকে সব দিক থেকে দুর্বল ও ঘৃণ ধরবার ব্যবস্থা করেছি”—এই সভায় ঘোষিত হয়। ইংরাজ প্রভৃতি বিদেশীরা ইহারই সুযোগ গ্রহণ করে আমাদের মধ্যে বিরাট বিভেদের সৃষ্টি করেছেন।

১৯২৫ সালে গান্ধীজীর পৌরহিত্যে খাদি-প্রতিষ্ঠানের সৃষ্টি হয়। তাহারই আদর্শ ও প্রেরণা কার্যে রূপ দেওয়ার জন্য সেই সময় থেকে আচার্যদেব চরখার বাণী প্রচার করে নিজে নিয়মিত চরখা কেটে এবং একটা খন্দরের লুঙ্গি পরে আমরণ দেশেবিদেশে ভ্রমণ করেছেন। তিনি বলতেন, “I am the disciple of the semi-naked Fakir.”

১৯২৮ সাল থেকে শারীরিক অসুস্থতা ও বার্ধক্যের দরুণ বোটে (boat) নদী-পথে খুলনা জেলার বিভিন্ন গ্রামে উপস্থিত হয়েছেন। বিদ্যালয়ের পারিতোষিক সভা উপলক্ষে মিলিত হয়েছেন গ্রামবাসীদের সঙ্গে। ১৯৩১ সালে ৭০ বৎসর বয়সে টাকীর অদ্রবতী সোদপুর গ্রামে “পল্লী-মিলন সমিতির” ব্যায়াম প্রতিযোগিতায় পুরস্কার বিতরণী সভায় উপস্থিত হয়ে তাহার বাল্যজীবনে গ্রামের মধুর দিনগুলির স্মৃতিই বেশী করে বলেছিলেন। নিজে অর্থ দিয়ে প্রতি বৎসর এপ্রিল থেকে জুনের মধ্যে খুলনার অত্যন্ত অনুন্নত মুসলমান-প্রধান গ্রামে পারিতোষিক বিতরণ উৎসবের সৃষ্টি করিতেন। সেই উৎসব-পর্বে নব প্রাণের সাড়া পড়ে যেতো। হাজার হাজার লোকের সমক্ষে খোলা মাঠে মাইকের সাহায্য ব্যতিরেকে প্রাণস্পর্শী বক্তৃতা দিতে দিতে তিনি তাদের মধ্যে ঝাঁপিয়ে পড়তেন একেবারে পাগলের প্রায়।

তাহার জীবনে ভোর সাড়ে চারটায় শয্যাভ্যাগ এবং প্রাতঃকৃত্য ও প্রাতরাশ শেষে কিছুক্ষণ মুক্তপদে পায়চারি করে ঘন্টাখানেকের ভিতর অধ্যাবসায়ী ছাত্রের মত পাঠে মনোনিবেশ এক নিয়মিত অভ্যাস ছিল। সোদপুর গ্রামে ১৯৩০ সালে প্রথম উপস্থিতির সময়ে জেলেদের পাঠশালার প্রাতরাশ সেরে পড়ুয়াদের পাঠ গ্রহণ এবং সন্ধ্যায় উহাদের হরি-লুটের বাতাসা নৈবার জন্য সকলের সাথে কৌচড় পাতিয়া বসা এক অবিস্মরণীয় মধুর স্মৃতি। পদব্রজে জেলেদের শিরোমণির বাড়ী উপস্থিত হয়ে তাদের অভাব অভিযোগ অসু-বিধার আলোচনা করা ও পরামর্শ দেওয়াতে তাহার দেশপ্রীতির অপূর্ব দৃষ্টান্ত পাই। ১৯৩০ থেকে ১৯৪২ পর্যন্ত সোদপুরে যাওয়া তাঁর একটি নিয়মের মধ্যে ছিল। সেখান থেকে বোটে করে খুলনা জেলার সমস্ত পল্লীতে পল্লীতে ফিরতেন।

১৯৩০ সালের পর থেকে মহাত্মা গান্ধী প্রমুখ বড় বড় নেতাদের গ্রেপ্তার সূরু হল। তার ফলে আচার্য প্রফুল্লচন্দ্র বাঙ্গলা তথা ভারতের বিভিন্ন স্থানে বিভিন্ন অনুষ্ঠানে পৌরহিত্য করিবার জন্য আহ্বান পান। অনেকের কাছে প্রশ্ন শোনা যায়, তিনি কখনও কারাবরণ করেন নি তবুও এটা সম্ভব হলো কি করে? এর কারণ প্রধানতঃ চিরদিন তাঁর কার্যক্ষেত্র ছিল গঠনমূলক। ইহা উগ্র রাজনীতির বশবর্তী ছিল না। সরকারী খাতায় তাঁর নাম ছিল, “revolutionary in the garb of a scientist.” কারণ তাঁর আশ্রয়ে বহু সন্ত্রাসবাদী ও বিপ্লবী পুর্লিঙ্গের দৃষ্টি এড়িয়ে বহুদিন কাটিয়ে গেছে।

১৯৩৩ সালে করাচীতে শিল্প-মেলায় উদ্‌ঘোষন উপলক্ষে যান এবং সেখানকার সম-বায় ব্যাঙ্ক উদ্‌ঘোষন করেন। সেই সময় করাচীর পৌরপ্রধান জামসেঠ্জী তাঁকে বিরাট ভাবে পৌরসম্বর্ধনা জানান। পাসীদের বৃহৎ সমাজের পক্ষ থেকে তাদের কুলপুরোহিত বিশিষ্ট জ্ঞানী, শিক্ষারতী ও গ্রন্থকার ডাঃ চান্না আচার্য রায়ের হিন্দু কের্মিষ্ট্র সৃষ্টি প্রভৃতি তাঁর

জীবনের বিশেষ বিশেষ অবদানের কথা উল্লেখ করে তাঁকে বিপুল ভাবে সম্বর্ধিত করেন। ভাষণ-দান উপলক্ষে আচার্য রায় পাসীদের বিলাসিতা ত্যাগ করে সমাজের সংস্কার সাধনের উপদেশ দিতে বিরত হন নি। মৃষ্টিমেয় প্রবাসী বাঙালীদের অভ্যর্থনা সভায় তিনি তাদের জাতিগত দোষ “দলাদলি” ত্যাগ করে চলতে উপদেশ দেন। ফিরিবার পথে লাহোরে দুই দিন অবস্থান করেন এবং সেখানেও বিশেষ বিশেষ সভায় বক্তৃতা দেন। ডক্টর ভাটনগর, ডক্টর সুরেন দাসগুপ্ত ও ডক্টর জ্ঞান রায়ের সেই সময়ের আন্তরিক সম্বর্ধনার কথাও ভুলবার নয়।

১৯৩৪ সালে শিল্প-প্রদর্শনীর উদ্‌বোধন উপলক্ষে আচার্যদেব দিল্লীতে জি. ডি. বিরলার বাড়ীতে পাঁচ ছ’ দিন অবস্থান করেন। এ অবস্থান-প্রস্তাব ছিল, তাহার নিজবৃদ্ধি-প্রণোদিত। কারণ তিনি জানতেন যে বিরলা প্রভৃতি অবাঙালীদের নিয়ে বাঙালার শোষণনীতি সম্বন্ধে বিভিন্ন বক্তৃতা ও প্রবন্ধে যে আলোচনা করেছেন, তার ভুল ব্যাখ্যা হয়েছে। তিনি বাঙালীজাতিকে মাড়োয়ারী প্রভৃতি অবাঙালীদের কর্মনিষ্ঠায় দীক্ষিত করতে চেয়েছিলেন, অবাঙালীদের উপর কোন বিদ্বেষ প্রচার তাঁর উদ্দেশ্য ছিলনা। এই সব কথা তিনি ঘনশ্যামদাস বিরলাকে নানা ভাবে বুদ্ধিয়ে দিতে সফলকাম হয়েছিলেন। এটা তাঁর বিশেষ দূরদৃষ্টির পরিচয় বলা যায়। এই ভুলবোঝাবুদ্ধির দূর করবার ইচ্ছাই যে তাঁকে বিরলা-ভবনে বাস করতে প্রলুব্ধ করেছিল, একথা তাঁর কাছেই শোনা। দিল্লীর প্রবাসী বাঙালীদের আয়োজিত সম্বর্ধনা-সভায় তিনি বাঙালীদের জাতিগত দোষ বর্জন করতে উপদেশ দেন।

এই বৎসরে ইন্দোরে এক শিল্প-মেলায় উদ্‌বোধনে গিয়ে ডাঃ প্রফুল্লকুমার বসুর অতিথিরূপে কয়েকদিন বাস করেন। এখানে বর্ণনীয় শেঠ স্বরূপচাঁদের সম্বর্ধনা এবং হোলকার কলেজের বিশেষ অভিনন্দন সভা। সম্বর্ধনার উত্তরে তিনি এক সারগর্ভ বক্তৃতা দেন। সেখান থেকে ৭০।৮০ মাইল দূরে অবস্থিত কালিদাসের উজ্জয়িনীর নয়নাভিরাম শোভা দর্শন করে তিনি পরমানন্দ লাভ করেন।

১৯৩৩ সালে মেদিনীপুরের জমিদার দেবেন্দ্রলাল খাঁর আহবানে তাঁর Gope Palace-এ তিনি আতিথ্য গ্রহণ করেন। অদূরস্থিত বহু পুরাতন মন্দিরে গান্ধীজি-প্রণোদিত হরি-জনদের প্রবেশাধিকার দেওয়ার জন্য তাঁকে পৌরহিত্য করিতে হয়—এ-ঘটনা অবিস্মরণীয়।

১৯৩৫ সালে ওয়ার্ধায় গান্ধীজীর নেতৃত্বে এক বিরাট শিক্ষা-সম্মেলন (The Great Wardha Educational Conference) হয়। ওয়ার্ধাযাত্রার পথে বিশেষ উল্লেখযোগ্য ঘটনা হচ্ছে—ঐ ট্রেনেই ইন্টার ক্লাসে বাবু রাজেন্দ্রপ্রসাদ সপরিষদ উক্ত অনুষ্ঠানে যোগদানের জন্য যাচ্ছিলেন। আচার্য রায় দ্বিতীয় শ্রেণীতে ছিলেন। মধ্যপথের কোনও স্টেশনে ট্রেন কিছুক্ষণ থামা অবস্থায় আচার্য রায় ইন্টার ক্লাসে প্রবেশ করলেন এবং “where is Rajendra Prasad, where is Rajendra Prasad?” বলে তাঁর প্রিয় ছাত্র রাজেন্দ্রপ্রসাদকে আলিঙ্গনাবদ্ধ করলেন। ওয়ার্ধায় শেঠ যমুনালাল বাজাজের অতিথি-শালায় তাঁর থাকার ব্যবস্থা করা হয়। তিন-চার রাত্রি ওয়ার্ধায় কাটে; সর্দার বল্লভভাই প্যাটেলও ঐ অতিথিশালায় ছিলেন। একদিন দেখা গেল আচার্য রায় বালকসুলভ অভ্যাসে বল্লভভাই প্যাটেলের পিঠের উপর লাফিয়ে গলা জড়িয়ে ধরলেন, সর্দারজীও বিশেষ আনন্দের সঙ্গে তাঁকে নিয়ে ঘুরতে লাগলেন। ওয়ার্ধায় বিশেষ অধিবেশনের ছ’দিন আগে থেকে গান্ধীজী তাঁর চিরাচরিত মৌনব্রত অবলম্বন করেন। অধিবেশনের দিন সকালে পূর্ব ব্যবস্থামত মহাদেব দেশাই সহ গান্ধীজীর কুঠিরে যাওয়া হয়। প্রথম সাক্ষাতেই মহাত্মাজী আচার্য রায়কে দৃঢ়ভাবে আলিঙ্গন করেন। তাঁহাকে দুই হাত দিয়ে উঠিয়ে ভূমিশ্রদ্ধা করেন। সঙ্গে সঙ্গে তাঁর দাড়ি ধরে সোজাসে নাড়া দিতে লাগলেন। কায়েতী ভাষায় লিখে তাহার কুশল জানতে চাইলেন। আচার্য রায় বললেন, “I have always drawn my inspiration from the semi-naked Fakir” (i.e., Gandhiji)। গান্ধীজী বললেন, “না-না, সে কি কথা, but what about your maidan club? That has been a

source of inspiration always." স্থানান্তরে এই ময়দান ক্লাবের কথা বিস্তারিত ভাবে বলা যাবে।

১৯৩৬ সালে ঝাড়গ্রামরাজের আমন্ত্রণে ঝাড়গ্রামের বেলবেড়ায় গমন করেন, কো-অপারেটিভ সোসাইটির উদ্‌ঘোষনে; রাত্রে হাতীর পিঠে চেপে বহুবিস্তৃত জলপথ তাঁকে অতিক্রম কর্তে হয়। রাস্তার ক্রেশ কিছুমাত্র তাঁকে নিরুৎসাহ বা নিরানন্দ করে নি। শিক্ষারতী বৈজ্ঞানিক তিনি। কো-অপারেটিভ সোসাইটির উদ্‌ঘোষন উপলক্ষে তাঁর আগমনে কেহ কেহ প্রশ্ন বিস্ময় প্রকাশ করায় তিনি সহাস্যে উত্তর দেন—“আমি হিঁচু ব্যঞ্জন বর্ণের বিসর্গবর্ণীয়; ক-এ বিসর্গ দাও কঃ, খ-এ বিসর্গ দাও খঃ, গ-এ বিসর্গ দাও গঃ। তেমনি আমি বৈজ্ঞানিকের দলে বৈজ্ঞানিক, ব্যবসায়ী-সমাজে ব্যবসায়ী, গ্রামসেবকদের সাথে গ্রামসেবী, অর্থনীতিবিদদের মহলে অর্থনীতিজ্ঞ।” সমস্যার সহজ সমাধান। এ বাণীর পূর্ণরুজ্জ্ব তিনি জীবনে বহু মণ্ড থেকে করে গেছেন।

১৯৩৬ খৃষ্টাব্দে বরিশালস্থ অশ্বিনীকুমার দত্তের বিখ্যাত বিদ্যায়তনের সুবর্ণ-জয়ন্তীর পৌরহিত্য করা উপলক্ষে দত্ত মহাশয়ের বাটীতে তিনি কয়েকদিন অবস্থান করেন। সে সময়ে বহু আনন্দকর ঘটনার প্রবাহ বরিশালের উপর দিয়ে বয়ে যায়। অবর্ণনীয় সে আনন্দপ্রবাহ।

আচার্যদেবকে ১৯৩৬ খৃষ্টাব্দে চিত্তরঞ্জন কটন মিলের উদ্‌ঘোষনে পৌরহিত্য করতে যেতে হয় নারায়ণগঞ্জে। সেখান থেকে ঢাকা কটন মিলের ১নং ও ২নং মিল পরিদর্শন করেন। চিত্তরঞ্জন কটন মিলের কর্ণধার ধীরেন্দ্রনাথ রায় প্রভৃতির কথা মনে পড়ে। অতঃপর ঢাকায় ডক্টর জ্ঞান ঘোষের বাটীতে গিয়ে কয়েকদিন বাস করেন। ডাক্তারের নিষেধ সত্ত্বেও ঢাকার এক বিরাট হলে বক্তৃতা দান কালে বহু বিষয়ের মধ্যে সিনেমা শিল্প যে দেশের সমাজ, ধর্ম ও অর্থনীতির দিক দিয়ে কত বড় সর্বনাশকর তার এক বাস্তব চিত্র লোকসমক্ষে বর্ণনা করেন।

১৯৩৮ সালে প্রতি বৎসরের মত বাঙ্গালোরে যাওয়া হয় Institute of Science-এর সভায় যোগদানকল্পে। ডক্টর জ্ঞান ঘোষ সে বছর ডিরেক্টর হয়ে বাঙ্গালোরে গেছেন। পূর্বে তাঁহার প্রিয় শিষ্য ডক্টর প্রফুল্লচন্দ্র গুহের বাড়ীতে অবস্থান করতেন। ডক্টর ঘোষ যাওয়ার পর ভাগাভাগি করে দুই শিষ্যের বাড়ীতে কাটাতেন, যে কদিন তিনি বাঙ্গালোরে থাকতেন। ১৯৩৮ সালে বাঙ্গালোর থেকে ফিরবার পথে এক ভীষণ বিদ্রাট। ভদ্রকের প্রবল বন্যায় রেলপথ জলমগ্ন। রেলের রায়পুর ঘুরে ১ দিন পরে যখন ভদ্রকে পেঁছালেন তখন না-স্নান না-খাওয়া অবস্থা। চারিদিকে শূন্য উত্তাল জলরাশির ব্যাপক চিত্র। লোকালয়ের সন্ধান পাওয়া যায় না। বেলা ১২টা বেজে গেছে, কি খাবেন তাই ভাবনার কথা হলো। সপ্তে ছিলো কয়েক টুকরো রুটি ও কিছু পুরানো তেঁতুল। তাই খেয়েই নির্বিকার চিন্তে তখনকার মত কাটিয়ে দিলেন; এমনি অশুভ ছিল ঐ শীর্ণদেহ, ব্যাধিক্ষীণ, ক্ষয়িতুল্য ব্যক্তির সহনশক্তি। অবশ্য জীবনের অগণ্য বিভিন্ন ব্যাপারে এইরূপ ঘটনায় তাঁর চরম চিন্তাসংঘর্ষের পরিচয় তিনি দিয়ে গেছেন। এর আগে গাড়ীর জানালার চাপে আগুলটা একেবারে থেঁতলে যায়। সারা রাস্তা জলপট্টির সাহায্যে উপশমের ব্যবস্থা করা হয়, তাতেও তাঁর মুখের কোন বিকৃতি দেখা দেয়নি। নিজের সুখ-স্বাচ্ছন্দ্যকে তিনি চিরদিনই উপেক্ষা করে চলে গেছেন। বাৎসরিক খুলনা সফরের সময় দৌলতপুরে উপস্থিত হলেন ১৯৩৯ সালে। সেখানে খবর এলো কবি মানকুমারী বসু তাঁর ৬৪ বৎসরের কন্যার মৃত্যুতে বিশেষ শোকমগ্না হয়ে পড়েছেন। জামাই এবং বহু পুত্রপৌত্রাদিও ঐ কন্যার বিদ্যমান ছিল। কবি-ভগ্নীর সপ্তে আচার্যদেবের এক মধুর সম্পর্ক চিরদিন বর্তমান ছিল। খবর শোনার পর তাই তিনি আর স্থির থাকতে পারলেন না। ঐ বৃদ্ধ বয়সে অপটু দেহ নিয়েই চত্বেন কবি-ভগ্নী সন্নিধানে। কাব্য ও কবিতায় যিনি সারাজীবন দুঃখপীড়িত, শোকতপ্ত জনগণকে শুনিয়েছেন সাম্বনার বাণী, দিয়েছেন আশার আশ্বাস, বৃদ্ধবয়সে এই শোকে তিনি একেবারে মুষড়ে পড়েছেন দেখা গেল। আচার্যদেবকে দেখে একেবারে হাউ হাউ করে কেঁদে উঠলেন ও তাঁর কোলে পড়ে ফুঁপিয়ে

ফুঁপিয়ে কাঁদতে লাগলেন। আচার্যদেব তাঁর মাথায় সন্নেহে হাত বুলোতে লাগলেন, শোকে অভিভূত না হয়ে ধৈর্যধরার কথা বলতে লাগলেন বার বার। মানকুমারী বললেন—“বুঝি সব-ই; কিন্তু আমি সমস্ত বুঝেও যে নিজেকে সম্বরণ করতে পারছি না।” আচার্যদেব মৃদুহাস্যে আবার তাঁকে সান্ধনা দেওয়ার চেষ্টা করতে লাগলেন এবং কালক্রমে সফলও হলেন। বিদ্যাসাগর সম্বন্ধে শ্রীমধুসূদনের যে উক্তি আজ কিংবদন্তীতে পরিণত হয়েছে, সেই heart of a Bengali mother-এর এমনি অপূর্ব পরিচয় পাওয়া যায় এই জ্ঞানতপস্বীর মধ্যে।

১৯৩৬ সালে আচার্যদেব ময়মনসিংহ জেলার সুদূর করটিয়ার তরত কলেজের অধ্যক্ষ মহম্মদ ইব্রাহিমের বিশেষ আমন্ত্রণে যান এবং সেখানে বোটের উপর কয়েক রাত্রি কাটান। কলেজের পক্ষ থেকে তাঁকে “জ্ঞানবারিধি—” ইত্যাদি প্রশান্তি প্রয়োগে সম্বর্ধিত করা হয়। এইরূপ আহ্বান তিনি প্রায়ই উপেক্ষা করতেন না পারতপক্ষে।

১৯৪০ সালে অখ্যাতনামা ও সাময়িকভাবে নিরুদ্ভিষ্ট এক দেশকর্মীর প্রথমজাত পুত্রের অন্নপ্রাশন অনুষ্ঠান সূচাররূপে সম্পন্ন করার জন্য বাঙ্গালার এক নিভৃত পল্লীতে— তাঁর ভাষায় “Royal post of Saidpur”—যান।

১৯৩৯-৪০ খৃষ্টাব্দেই একবার আলোচনা প্রসঙ্গে ডক্টর জ্ঞান ঘোষকে আচার্যদেবের লক্ষণীয় বৈশিষ্ট্য কি জিজ্ঞাসা করায় তিনি বলেন, প্রফুল্লচন্দ্রের মত মহাপ্রাণ ও ছাত্রবান্ধব বিরল। তিনি আরও বলেন, প্রতি মাসের প্রথম তিন-চার দিন অগণিত প্রার্থীর ভিড়-নিয়ন্ত্রণ করতে তাঁহাদের হিমশিম খেতে হয়েছে। কিন্তু এমনি নীরব ছিল তাঁর দান যে তাঁর দান হাতের দান বাঁ হাত জানতে পারতে না। এই মহৎ প্রাণসত্তার বলেই তিনি ছাত্রসমাজের চিন্তা জয় করেছিলেন। বস্তুতঃ তাঁর রোগা হাতের সন্নেহ কীল-চড় বর্ষণ ছাত্রেরা অম্লান বদনে সহ্য করে নিজেদের যেন ধন্যই মনে করত। এই সময়ে St. Xavier's-এর ছাত্রদের ধর্মঘট উপলক্ষে Allen Garden-এ (Park Street) ছাত্রসভায় উপস্থিত হয়ে তিনি ছাত্রদের পক্ষ হয়ে কলেজ কর্তৃপক্ষের তীব্র সমালোচনা করতে বিন্দুমাত্র কাপণ্য করেন নি। পক্ষান্তরে এমনও ইঙ্গিত করেছিলেন—“দেখো তোমাদেরই মধ্যে কোন black sheep যেন না আবার উদয় হয়।”

মানুষকে চেনা যায় প্রতিদিনকার ক্ষুদ্রাতিক্ষুদ্র কাজের মধ্যে দিয়ে। বহুৎ কোন ব্যাপারে বহুর সঙ্গ মিশে ভীরুও পরম সাহসিকতার পরিচয় দিতে পারে। সেটা তাঁর সত্য পরিচয় নয়। আচার্যদেবের জীবনের নানা ছোটখাট ঘটনা পর্যালোচনা করলেই, তাঁর বিরাট ও মহৎ পরিষ্কৃষ্ট হয়ে ওঠে। ইতস্ততঃ বিক্ষিপ্ত কত কথাই মনে পড়ে যায়।

১৯২৮ কি ১৯২৯ সালে বাগেরহাট কলেজ স্থাপিত হয়; অট্টালিকা নয়—ছেঁচার বেড়া—গোলপাতার ছাওয়া বিরাট ছাউনি। অনাবৃষ্টির সময় উন্মুক্ত প্রাঙ্গণে বৃক্ষতলে পঠন-পাঠন, বৃষ্টি এলে ছাউনিতে আশ্রয় গ্রহণ, এইভাবে হলো সূত্রপাত। তাঁর নামে ও প্রেরণায় বিশিষ্ট আদর্শ-চরিত্র শিক্ষাব্রতী কামাখ্যাচন্দ্র নাগ মহাশয় দৌলতপুর কলেজের কাজে ইস্তফা দিয়ে চলে এলেন বাগেরহাট, অধ্যক্ষরূপে। তাঁর মত ছাত্রদরদী আদর্শশিক্ষক এ-যুগে কেন তখনও ছিল বিরল। তাঁর ঐকান্তিক আগ্রহে এবং গ্রামের টানে আচার্যদেব বছরে অন্ততঃ একবার করে বাগেরহাট যেতেন। সে কি দুর্দিন গেছে। অধ্যাপকদের নিয়মিত মাহিনা নাই—ছাত্রদের দেওয়া যায় না ঠিক মত আশ্রয়। সকলে যেন আচার্যদেবের যাওয়ার দিনের প্রতীক্ষায় উন্মুখ আগ্রহে অপেক্ষা করে থাকতেন। তিনি গেলে সবাই টাকা পাবেন কিছ্রু কিছ্রু—এই ভাব। তিনি গিয়ে আরম্ভ করতেন তাঁর শিশু-গেলে সবাই টাকা পাবেন কিছ্রু কিছ্রু—এই ভাব। তিনি গিয়ে আরম্ভ করতেন তাঁর শিশু-সুলভ অনাড়ম্বর, সরল, কৌতুক। টাকা হাতে নিয়ে দু'হাত মূঠ করে বলতেন, “বল, কোন হাতে টাকা—কোন হাত ফাঁকা, কোন হাতে নেবে”—তারপর হাঃ হাঃ করে হাসি। এক সময়ে ওখানকার বিশিষ্ট উচ্চপদস্থ রাজকর্মচারী তাঁর ব্যক্তিগত মান মর্যাদার অজুহাতে কলেজ কর্তৃপক্ষের প্রতি অত্যন্ত বিরূপ আচরণ করতে থাকেন। আর্থিক অসচ্ছলতার

কারণে এমনিতে কষ্টকর দিনগুলি তাতে অধিকতর কষ্টকর হয়ে উঠতে থাকে। আচার্য-দেব শূনে তাঁকে ডেকে পাঠালেন আর স্বল্পকথায় বোঝালেন যে ব্যক্তিগত বিরূপতার জন্য একটা শিক্ষাপ্রতিষ্ঠানের ক্ষতি করা শোভন নয় এবং অনুচিতও বটে। ভদ্রলোক “না-না, আপনার দৌলতেই ত আমার লেখাপড়া-শেখা” ইত্যাদি বলে তখনকার মত চলে গেলেন এবং তারপর যতদিন ছিলেন বাগেরহাটে অর্থানুকূল্যের আর বিরতি ঘটেনি। শুকলাল নাগ নামে এক বিরাট ধনী ব্যবসায়ীর অর্থসাহায্যে এক সরোবর কাটান হয় বাগেরহাটে। তার নামকরণ হয় শুক-সরোবর। এই শুক-সরোবরের পারে স্থানীয় গণ্যমান্য সবাই সমবেত হতেন; এবং আচার্যদেবকে কেন্দ্র করে অনাবিল হাস্য-পরিহাসে বা বিভিন্ন গ্রাম্য সমস্যার আলোচনায় সময় অতিবাহিত হতো। বিখ্যাত কবিরাজ বঙ্গবন্ধু সেন মহাশয় ছিলেন উচ্চাঙ্গ সংগীতের গুণী গায়ক এবং খোল-পাখোয়াজে ওস্তাদ। আচার্যদেব ছিলেন গানের—বিশেষ করে যন্ত্র-সংগীতের—ভক্ত। একদিন ঠিক হলো সন্ধ্যা সাতটায় সেন মহাশয় শুক-সরোবর তীরে তাঁর গানের আসর বসাবেন। সবাই উপস্থিত। কিন্তু কোথায় বা সেন মহাশয় আর কোথায় বা তাঁর গান। সাত, সোওয়া সাত, সাড়ে সাত—আটটা বাজতে চলল। তখন অনুসন্ধান করে জানা গেল—খোলের চামড়া ইন্দুরে কেটে দেওয়ায় বিভ্রাট সৃষ্টি হয়েছে। তিনি বিরত ভাবে অনুসন্ধান করে বেড়াচ্ছেন অন্য বাদ্যযন্ত্রের। অবশেষে অতি কষ্টে অন্য যন্ত্র সংগ্রহ করে সেদিনকার মত আসর জমান গেল।

১৯৩২ খৃষ্টাব্দে তাঁর ৭০-বৎসরপূর্তি উপলক্ষে দেশবাসীর পক্ষ হতে অভিনন্দন দেওয়া হয়। রবীন্দ্রনাথ সভাপতি। টাউন হল ছিল তখনকার দিনে বড়গোছের সভা-সমিতির অধিবেশন-স্থল। জনসমাকীর্ণ টাউন হলে সভাপতিরূপে অভিনন্দন পাঠ করতে উঠে রবীন্দ্রনাথ তাঁর অনবদ্য ভাষায় বললেন : “আমাদের উভয়ের কর্মধারা একই ভাবে প্রবাহিত। উপনিষদের ‘একোহং বহুস্যাম’ এই অভিলাষ আচার্যদেব তাঁর জীবনে পূর্ণ করেছেন—বহু কর্মধারায় নিজেকে ব্যাপ্ত করে। ছাত্রদের মধ্যে তাঁর গৃহাহিত শক্তি বিকীরণ করেছেন তিনি।” রবীন্দ্রনাথের অকুণ্ঠ অভিনন্দনের উত্তরে বলতে উঠে আচার্যদেব বললেন, “উনি আমার মাস তিনেকের বড়। বরাবর আমাকে স্নেহ করতেন এই-ই জানতাম। এখন কেন যে আমার সঙ্গে এমন শত্রুতা করছেন জানি না।” আবার বললেন, “এই রাজশেখরকে দিয়ে আমি কোন রকমে বেংগল কেমিক্যাল চালাচ্ছি। কিন্তু উনি এমন ভাবে ওর মাথায় সাহিত্য ঢুকিয়ে দিয়েছেন, প্রশংসা করে ওকে এমন বাড়িয়ে দিয়েছেন—আর কি বেংগল কেমিক্যাল-এ ও থাকতে চাইবে। সে-স্থান এখন ত ওর পক্ষে খুব ক্ষুদ্রই মনে হবে।” সবাই ত হাঁফ ছেড়ে বাঁচলেন। তারপর রবীন্দ্রনাথের সাহিত্যপ্রসঙ্গ উত্থাপন করে বললেন : “ওর আগের লেখাগুলো বেশ স্পষ্ট বোঝা যায়। আজকালকার লেখাগুলো কেমন ধোঁয়া ধোঁয়া। বড়তে পারিনা ঠিক।” রবীন্দ্রনাথ সহাস্যে বললেন—“আজকের লেখাটা বড়তে পেরেছেন ত!” বিপুল হাস্যের মধ্যে এই ভাবে সেই মহতী সভার পরিসমাপ্তি হলো।

১৯৩৪ খৃষ্টাব্দে এলাহাবাদে Hindu chemistry সম্বন্ধে আলোচনার জন্য মহতী বিজ্ঞান-সভার অধিবেশনে উপস্থিত হয়ে আচার্যদেব গভীর পাণ্ডিত্যপূর্ণ ভাষণ দেন।

ফরিদপুর জেলার ওলপুরে প্রখ্যাত সমাজকর্মী চন্দ্রনাথ বসুর নেতৃত্বে এক বিরাট খালখনন শুরু হয় ১৯৩৬ খৃষ্টাব্দে। ঐ বিরাট খালখননের জন্য যে বিভিন্ন বিপুল বাধা অতিক্রম করতে হয় এবং বহুজীবন বিপন্ন করেও যে শৃঙ্খলার সঙ্গে কর্মীদের কাজ করতে হয় তার স্মৃতি হয়ত এখনও স্থানীয় অধিবাসীদের স্মরণে আছে। ঐ খালখননের ফলে গ্রামের লোকদের প্রভূত উপকার হয়েছে। এই খনন-উৎসবে পৌরহিত্য করেন আচার্য রায়। তিনি যে কত বড় কর্মবীর ছিলেন,—বাংলাবাসীর স্বভাবসুলভ ভাবোচ্ছ্বাসে বিহ্বল হয়ে “মূলে হা-ভাত” ঘটাতেন না, তার উদাহরণ পাওয়া যায় দৌলতপুর কলেজের অধ্যাপক সতীশচন্দ্র মিত্রের বিখ্যাত “যশোহর-খুলনার ইতিহাস” প্রণয়নের সম্পূর্ণ ব্যয়-ভার বহন করায়। আচার্যদেবই সতীশবাবুকে উপদেশ দিয়ে কবি থেকে ঐতিহাসিকে পরিণত



করেন, এবং ভাবপ্রবণতা হতে মুক্ত করে তাঁকে নতুন কর্মক্ষেত্রের মধ্যে নবপ্রেরণায় উদ্বুদ্ধ করেন। গভীর কৃতজ্ঞতার সঙ্গে সে কথা তিনি বইয়ের মধ্যবন্ধে স্বীকার করেছেন। শুধু যে প্রফুল্লচন্দ্র প্রায় তাঁর প্রতি প্রবন্ধে ও বক্তৃতায় বাঙালীকে চাকরীর মায়া ত্যাগ করে ব্যবসায় মনোনিবেশ করতে উপদেশ দিয়ে গেছেন তাই-ই নয়; বহু ক্ষুদ্র, নাতিবৃহৎ ব্যবসায়ীকে অর্থসাহায্য ও প্রেরণা যোগাইয়াছেন তিনি। কতলোক যে তাঁহার কাছে এ ভাবে উপকৃত, কতলোককে বিশ্বাস করে যে পরে তাঁকে ঠকতে হয়েছে, তার ইয়ত্তা নাই। তবুও জীবনের শেষ দিন পর্যন্ত ব্যবসায়ের নাম করে সাহায্যপ্রার্থী হলে কাউকে তিনি বিমুখ করেন নি।

তাঁর দিনপঞ্জীর মোটামুটি আলোচনা করলেই দেখা যাবে ঐ ক্ষীণ, রোগজীর্ণ দেহের মধ্যেও কী অপারিসীম উদ্যম ও কর্মপ্রবণতা ছিল।

সহরের দিনপঞ্জী :—৪-৩০—শয্যাভ্যাগ, প্রাতঃকৃত্য,
খালিপায়ে ভ্রমণ অন্ততঃ আধঘন্টা।
৫-৩০-টার মধ্যে—পাঠরত।
৮-৩০-টায় ——— চরখা কাটা।
ল্যাবরেটরী পরিদর্শন, উপদেশ
প্রদান, চিঠিপত্র লেখা।
১১-টার পর—দর্শনার্থীদের সহিত
সাক্ষাৎকার।
১২ই-টায়—স্নান, নিজহস্তে পরিধেয়
পরিষ্কার, মধ্যাহ্ন-ভোজন।
২-টা পর্যন্ত—চোখ বেঁধে শয্যায় শয়ন,
পাঠপর্যায়।
৩ই-টা—৪-টায়——বৈকালিক জলযোগ,
পাঠাভ্যাস, আলোচনা।
৫-টার পর——বেঙ্গল কেমিক্যাল;
সভা-সমিতিতে যোগদান।
(সন্ধ্যায়) ময়দানে Roberts' statue-এর
নিকট সমবেত হওয়া। প্রায় আধঘন্টা
জোর জোর পা'ফেলে হাঁটা; আলাপ
আলোচনা।
রাতে ৯-টায়—রাতের খাবার; নিদ্রা।

প্রতি বছর মাস তিনেকের জন্য তিনি পঞ্জী অঞ্চলে বিশেষ করে নিজ গ্রামাঞ্চলে অতিবাহিত করতেন। সে সময়কার দিনপঞ্জীও বিচিত্র। ভোর ৪ই-টা হতে সকাল ৮ই-টা পর্যন্ত—সহর বাসের অনুরূপ।

৮ই-টার পর—নগ্নপদে স্বগ্রামবাসীর প্রতি গৃহে গৃহে গিয়ে কুশলবার্তা জিজ্ঞাসা।
স্বিপ্রহরিক আহা—বিশ্রাম।
৫-টার পর বোটে করিয়া ভ্রমণ, দাঁড়টানা। বোটেই গান-ঝংনার আসর।
গ্রামবাসীদের সঙ্গে আলোচনা, তাদের অভাব-অভিযোগ শোনা এবং
বিবাদ-বিসম্বাদের মীমাংসা-প্রয়াস।

সহরের দিনপঞ্জীতে প্রতি সন্ধ্যায় ময়দানে Roberts' statue-এর নিকট সমবেত হবার উল্লেখ করেছি। এখানে এসে উপস্থিত হতেন, আচার্যদেবের সঙ্গ, জ্ঞানবৃন্দ Nestor, অধ্যক্ষ গিরিশচন্দ্র বসু, প্রমুখ সূধীবৃন্দ। অন্ততঃ আধঘন্টা বেড়ানোর পর ঐ মূর্তির নীচে বসে সামাজিক, রাজনৈতিক নানাবিধ আলোচনা চলত বহুক্ষণ ধরে। কলকাতায়

থাকলে গান্ধীজীও উপস্থিত হতেন এখানে। এই আসরকেই তিনি 'ময়দান ক্লাব' নামে অভিহিত করেছেন। ইংলণ্ডে এলিজাবেথ-এর আমলে বিভিন্ন inn হতে যেমন সমাজ ও রাজনীতিবিষয়ক নানা চিন্তাধারার উৎপত্তি ও প্রসার লাভ ঘটেছিল—তেমনি ঘটেছিল এই সহরের বৃক্কে ময়দান ক্লাবে। আচার্যদেব, গিরিশবাবু, চুণীবাবু, দেববাবু প্রভৃতি যথারীতি বসে বসে আলোচনা করতেন। দুটি ১৩-১৪ বছর বয়স্ক তথাকথিত নিম্নশ্রেণীর ছোকরা বিড়ি টানতে টানতে চলেছে সামনে দিয়ে। চুণীবাবু এবং দেববাবু বিশেষ করে চুণীবাবু (ইনি একজন জৈন) তাদের দেখে ধমকাতে লাগলেন। তারাও থেকে থেকে দিচ্ছে উত্তর। হঠাৎ কে একজন বললেন—“জানিস, P. C. Ray এখানে বসে আছেন।” এমনি অদ্ভুত ছিল তাঁর নামের প্রভাব যে একথা শুনেই তারা লজ্জায় বিড়ি ফেলে দিয়ে আচার্যদেবের পায়ে ধরে কাকুতি মিনতি করে ক্ষমা চাইতে লাগল। বিড়ি হৃদয়ন্ত ও ফুসফুসের পক্ষে যে কতখানি ক্ষতিকর আচার্যদেব তাদের দু-চার কথায় বলে ছেড়ে দিলেন।

দিনপঞ্জীতে তাঁর বিভিন্ন সময়ে পাঠ্যভ্যাসের উল্লেখ আছে। পাঠ্যবিষয়ে তিনি ছিলেন প্রায় সর্বভূক্; বিশেষ করে ইতিহাস—সর্বদেশীয় ইতিহাস, জীবনী, গভীর তত্ত্ব-বিষয়ক পুস্তকাদি। কাব্যে সেক্সপীয়র, মিল্টন, গোল্ডস্মিথ, রবীন্দ্রনাথ ও মধুসূদন, প্রবন্ধে—এমারসন, কার্লাইল এবং শরৎচন্দ্রের উপন্যাস ছিল তাঁর প্রিয় গ্রন্থরাজীর মধ্যে।

অত্যন্ত শ্রমশীল ছাত্রের মত তিনি গভীর বিষয়ের পুস্তকাদি ৫-৬ বার করে দাগ দিয়ে দিয়ে পড়তেন; আর সাদা কাগজের খাতা নিজে হাতে তৈরী করে, মলাট দিয়ে তাতে সারাংশ লিখে রাখতেন সগে সগে। পরে আবার তা হাতে অন্য খাতায় পরিষ্কার করে লিখে রাখতেন।

আচার্য রায় যে বিশেষ করে ছাত্রদের কত বড় দরদী ছিলেন তা ভাষায় বর্ণনা করা যায়না। সায়েন্স কলেজ প্রতিষ্ঠার পর থেকে রসায়ন-বিজ্ঞানের প্রধানাচার্য হিসাবে তিনি উপরের একটি হলের একাংশে অতি সাধারণভাবে দিন যাপন করতেন। আমরণ এক সাধারণ খাটিয়ায় বিশ্রাম ও শয়ন করতেন। ৮-১০ জন ছাত্র তাঁর আশ্রমে আহার না করলে তাঁর শান্তি হতো না। ১৯৪২ অর্থাৎ ৮২ বৎসর পর্যন্ত তিনি নিজের কাপড়-জামা নিজ হস্তেই কেচেছেন, এবং নিজের বাসন নিজেই মেজেছেন। ছাত্র ও আগতদের সঞ্চিত মুড়ি ও সিরাপ ইত্যাদি নিজ হাতে স্লেটে করে না দিয়ে ছাড়তেন না। সগে সগে কিল, চড় মেয়েও তাদের অভিজ্ঞত করতেন। এ প্রেমের তুলনা নেই। এ স্বাবলম্বনের তুলনীয় চরিত্র বিরল বললে অত্যাঙ্গ হয় না। আচার্য বলতে যাঁহার আচরণের দ্বারা সকলে অনুপ্রাণিত হবে—বিশেষ করে ছাত্র-সম্প্রদায়—বচনে নয়, কার্যের দ্বারাই; এ-সত্য বর্ণে বর্ণে তাঁর জীবনে প্রত্যক্ষ দেখিয়ে গেছেন। সম্ভব হলে ছাত্রদের তিনি সগে নিয়ে থাকতেন, তাদের নিয়ে তিনি বেড়াতে যেতেন ময়দানে, এখানে, ওখানে। যখন তিনি প্রেসিডেন্সী কলেজে অধ্যাপক ছিলেন, প্রথম বর্ষের ছাত্রদের ক্লাশ নেওয়া তাঁর চিররীতি ছিল। কারণ—তাঁরা তখন tender-aged—তাঁর কথা তাদের মধ্যে দিয়ে কাজ করবে। তাঁহার অধ্যাপনা করার ভঙ্গী ছিল সম্পূর্ণ বিভিন্ন প্রকৃতির—subjective চেয়ে objective ছিল আসল কথা। একটা উদাহরণ দিলে এর অর্থ বোঝা সহজ হবে। ১৯১৫ সালে পণপ্রথার নির্মম তাড়নে পিতাকে বাঁচাবার জন্য স্নেহলতা আত্মহত্যা করে। আচার্য রায় সেই সময় থেকে বিশেষ করে ক্লাসে প্রত্যেক ছাত্রকে—“Each and every one of you is a potential murderer of Snehalata (স্নেহলতা)”—এই বলেই তাদের ধাক্কা দিয়ে কিল ঘুষি মেয়ে সজাগ করে দিতেন। আবার Potassium Permanganate পড়াতে গিয়ে—“you সোনার চাঁদ—a small particle of this on your face and you lose Rs. 5000/-” —এ-কথা বার বার বলে তাদের চোখ খুলে দেবার চেষ্টা করতেন। এ-রকম কত কথাই বা উল্লেখ করা সম্ভব এই প্রবন্ধে? তাঁর এক বিশিষ্ট ছাত্রশিষ্য যার বয়স ৭০ বৎসর উত্তীর্ণ হয়েছে তাঁর কথা উঠলে বলেন : “তাঁর মত অধ্যাপক খুবই বিরল। এ-রকম মর্মস্পর্শী বাণী আর কারও মুখ থেকে তিনি প্রেসিডেন্সী কলেজে ছাত্রাবস্থায় পান নি।”



১৮৮৫ সালে বিলাতে পাঠ্যাবস্থায় এক বিশেষ প্রবন্ধ প্রতিযোগিতায়—India before and after the Mutiny—যা পুস্তিকাকারে প্রকাশ করেছিলেন, তা পড়লে তাঁর ইংরাজী, ফরাসী, ল্যাটিন, জার্মান প্রভৃতি বিদেশী ভাষায় আয়ত্তির কথা—সঙ্গে সঙ্গে শিক্ষা ও জ্ঞানের গভীরতার কথা—পরিষ্কৃত হয়ে আসে। প্রবন্ধের বিচারে তাঁর প্রথম হওয়াই উচিত ছিল, দ্বিতীয় স্থান দেওয়া হলো তাঁকে। এতে একটা সংকটের উৎপত্তি হলো। রাজদপ্তরে বিপ্লবী হিসাবে—“staunch revolutionary but in the garb of a scientist”—তাঁর নাম খোদিত হয়ে গেল; এবং চিরদিনই সেই খ্যাতি নিয়েই গিয়েছেন তিনি। “His name was always in the black book.”

১৯১৯ সালের জালিয়ানওয়ালা বাগের নৃশংস হত্যাকাণ্ডের পর কবিগুরু তাঁর সরকারী খেতাব knighthood ত্যাগ করলেন; কিন্তু আচার্য রায় তা করলেন না—এটা যে তাঁর বৈজ্ঞানিক সুদূরদৃষ্টির বিশেষ পরিচায়ক, তাহা উত্তর কালে নানারূপে প্রমাণিত হয়েছে। কারণ, দেখা যায় তিনি ঐ প্রচলিতভাবেই দিনের পর দিন কত বিপ্লবীকে কত ভাবে সাহায্য করে গেছেন ও আশ্রয় দিয়েছেন। এই সবার বিবরণ সবিস্তারে লিখতে যাওয়া দুঃসাধ্য ব্যাপার ও অপ্ৰাসঙ্গিক হয়ে পড়ে।

১৯২১ সালে আচার্য রায় যখন বিজ্ঞান কলেজে রসায়ন-বিভাগের কণ্ঠধার, সেই সময় বারাণসীতে Hindu College সৃষ্টি করে আচার্য রায়কে সেখানে প্রতিষ্ঠিত করার আহ্বান নিয়ে পণ্ডিত মদনমোহন মালব্য Science College-এ আচার্য রায়ের সঙ্গে দেখা করতে আসেন। আচার্য রায় যে-ভাবে মালব্যজীকে অভ্যর্থনা করেছিলেন ও যে-ভাবে তাঁর মর্মকথা ব্যক্ত করেছিলেন তা চিরদিন স্মরণে থাকবার মত বাণী—“That Bengal is very much in need of poor Dr. P. C. Rāy and Pandit Madan Mohan Malaviya has all the qualities of Sir Asutosh Mukherjee minus his genius.” ক-টা লোক আজ পর্যন্ত সংসাহস নিয়ে ও সামনাসামনি এরকম স্পষ্টোক্তি করেছেন; ইহা ভাববার বিষয়। তাঁর রসিকতার ভঙ্গীও ছিল অদ্ভুত রকমের। অতি সহজ সরল ভাষায় তিনি তাঁর ভাব ব্যক্ত করতেন। এক সময়ে তিনি বাঙ্গালোরের অদূরে কোলার জেলার স্বর্ণখনি দেখতে যান। সেখানে সোনা গালিয়ে ইটের আকারে তৈরী করে রাখা হয়। এরূপ এক-একটি ইটের ওজন প্রায় ত্রিশ সের। খনির উদ্ভূতন কর্তা তাঁকে বিরাটভাবে অভিনন্দিত করেন ও বলেন এরূপ একটি ইট আচার্য রায় বহন করে নিয়ে যেতে পারলে উহা তাঁরই সম্পত্তি মনে করতে পারেন। অবশ্য সহাস্য মুখে আচার্য রায় উত্তর দেন—“আমার নিজের ওজনই ত্রিশ সেরের কম, তা আমি এটা নিয়ে যাই কি করে?”

Shakespeare, Milton, Shelly, Byron, Carlyle, Emerson প্রভৃতির লেখা তিনি একেবারে মুখস্থ করে ফেলেছিলেন বলা যেতে পারে। Addison-এর Spectator-এ “Vision of Miranda” তাঁর শেষ জীবনের দিকে তাঁকে বিশেষ আকৃষ্ট করত ও বার বার তিনি ওটা পড়তে বলতেন। দিনের সময় ভাগ করে তিনি হাল ও গভীর প্রকৃতির সাহিত্য পাঠ করতেন বা শুনতেন। শরৎচন্দ্রের লেখার মধ্য দিয়েও তিনি বিশেষ আনন্দলাভ করতেন।

পল্লীর জনগণকে নানাভাবে জাগরিত করার ইচ্ছা তাঁর জীবনের একান্ত ব্রত ছিল। পূর্বেই বলা হয়েছে বছর বছর নিজ গ্রামে ও খুলনা জেলার সাইহটী, দুলদুলে, বৃধ-হাটা, বিষ্ণুপুর প্রভৃতি সুদূর গ্রামে গিয়ে—এপ্রিলের শেষ থেকে জুনের শেষ পর্যন্ত কালবৈশাখীর নানারূপ ঋজ্জা ভোগ করেও দেশবাসীকে নানাভাবে উদ্বুদ্ধ করতে কখনও পরাম্ভ হন নি। পারিতোষিক বিতরণ ছিল একটা গৌণ উপলক্ষ মাত্র। অনেক প্রতিষ্ঠানই তাঁর নাম বহন করে সংস্থাপিত ছিল। আচার্য রায় কৌতুক করে বলতেন—“আমার অবস্থা, কুলীন বামুনের মত খাতা দেখে শ্বশুরবাড়ী যেতে হয়।”

তিনি সত্যসন্ধ ছিলেন, কোনও গোড়া ধর্মবিশ্বাসী ছিলেন না। এ সম্পর্কে একটা ক্ষুদ্র ঘটনার উল্লেখ করা যেতে পারে। ১৯২৮ সালের এক সম্মুখ তাঁর সঙ্গে

তাঁর ঘোড়ার গাড়ীতে কলেজ স্ট্রীট ও মেডিকেল কলেজ পার হয়ে শিবমন্দিরের কাছে এলে আমাকে সংস্কার-বশে হাত উঁচু করে নমস্কার করতে দেখে তিনি বলে উঠলেন, “ও কি করছো—ভগবান কি ঐ মন্দিরে আছেন আর আমার এই গাড়ীর মধ্যে নেই—তিনি তো শক্তিরূপে সর্বত্র বিদ্যমান।”

জীবনের শেষাংশে যখন তাঁর নৌকা কপোতাক্ষী বেয়ে তাঁর স্কুলবাড়ীর কাছাকাছি এসে যেতো, তাঁকে তখন এ-খবর শোনানোর সঙ্গে সঙ্গে বোটের ছাতের উপর না উঠে তিনি ছাড়তেন না। আর “নিরখিতে সেই ভূমি চিত সদা চায়” এই কথা বোটে শূন্যে বিশেষ করে বাড়ীর সান্নিধ্যে আসার কালে উচ্চারণ করতেন। নিজ গ্রাম ও জন্ম-ভূমির প্রতি এত গভীর আসক্তি কোনও লোকচরিত্রে বিরল বলা যায়।

১৯৩৯ সালে বাঙ্গালোরে ডক্টর জ্ঞান ঘোষকে জিজ্ঞাসা করা হয়—বিশ্ববীদ্যের খাতায় বড় বড় হরপে নাম থাকা সত্ত্বেও কি করে গবর্ণমেন্ট তাঁকে knighthood খেতাব দিলেন? উত্তরে তিনি বললেন : “নানাদিকে তাঁর খ্যাতি—বিশেষ করে Hindu Chemistry রচনার পর—এত প্রবল হলো যাতে গবর্ণমেন্ট তাঁকে খেতাব না দিয়ে পারলেন না।” ঐ সময়ে আর একটি প্রশ্নের উত্তরে আচার্য রায়ের বৈশিষ্ট্য সম্বন্ধে ডক্টর ঘোষ বলেছিলেন : “আচার্য রায়ের মত অত বড় বিরাট প্রাণ ও ছাত্রবন্ধু সংসারে বিরল—উহাই তাঁর বিশেষত্ব।”

আচার্য প্রফুল্লচন্দ্রের জীবনের কিছু কিছু ঘটনাবলী উল্লেখিত করা গেল। আসল কথা, এই জন্মশতবর্ষপূর্তি উপলক্ষ করে রচনাসম্ভারপূর্ণ বৃহৎ স্মারক গ্রন্থেরও সৃষ্টি হতে যাচ্ছে—সবই আচার্যদেবের পূণ্যস্মৃতি রক্ষার উদ্দেশ্যে। এই সঙ্গে বিশেষ করে নিবেদন—প্রকৃত তর্পণ এর দ্বারা হবে না। ছোট ছোট পাঠ্যক্রম সৃষ্টি করে—অল্পবয়স্ক (১৬ বৎসরের কম) ছেলেদের মধ্যে তাঁর জীবনী সম্বন্ধে আলোচনা-প্রবাহ জাগাতে পারলে, গ্রামে গ্রামে গিয়ে তাঁরই অনুস্মৃতিতে কাজ করার ব্যবস্থা করতে পারলে, তবেই তাঁর প্রকৃত স্মৃতিতর্পণ করা হবে।

জীবনের সুখস্বাচ্ছন্দ্য, শারীরিক ক্রেশ, জরা-বার্ধক্য ইত্যাদি সমস্ত উপেক্ষা করে তিনি বিশেষ করে মধ্যবিস্তৃত বাঙ্গালীদের উন্নতিকল্পে আপ্রাণ চেষ্টা করে গেছেন। তাঁর নশ্বর দেহ ১৭ বৎসর হলো পরিত্যক্ত হয়েছে। তার আগে—১ বৎসর ধরলে ১৮ বৎসর আগেও, তাঁকে সক্রিয় হিসাবে আমরা দেখেছি। এর মধ্যে দেশ স্বাধীন হয়েছে,—হিন্দুস্থান পার্কেস্থানের সৃষ্টি হয়ে নানাদিক দিয়ে, বিশেষ করে মধ্যবিস্তৃত বাঙ্গালীর জীবনে, নানা জটিলতার সৃষ্টি করেছে। ইংলন্ডের অতি সঙ্কট মুহূর্তে কবি ওয়ার্ডসওয়ার্থ (Wordsworth) কবি মিল্টন (Milton) কে স্মরণ করে আকুল আহ্বান বাণী উচ্চারণ করেছিলেন, “Oh Milton, Thou shouldst be living at this hour. England hath need of Thee.” আমরাও সমভাবে আচার্যদেবকে বাঙ্গালার দুঃসময়ে বাঙ্গালীদের রক্ষা করার জন্য আহ্বান জানাই।

আচার্য প্রফুল্লচন্দ্রের সংস্কার

শ্রীআব্দুস সাত্তার

হিজলী জেল থেকে বেরিয়ে ১৯৩৩ সালে সিটি কলেজে ভর্তি হয়েছি। কলকাতার ১২নং রামলোচন মল্লিক স্ট্রীটে থাকতাম। সেই সময় সমসাময়িক রাজনৈতিক বিষয় নিয়ে দৈনিক সংবাদপত্রগুলিতে চিঠি লিখতাম। তারিখটা মনে নাই—সকালবেলাকার ডাকে একটি পোস্টকার্ড পেলাম। পোস্টকার্ডটির ওপরে লেখা—“সায়েন্স কলেজ, ১১নং আপার সাকুলার রোড”—তলায় পি. সি. রায়। চিঠিখানা পেয়ে বিস্ময়-বিমূঢ় হলাম; প্রশ্ন হতে লাগলো—এটা কি সত্যিই আচার্য পি. সি. রায়ের পত্র? তিনি আমাকে কেন চিঠি লিখতে গেলেন? মনটা সত্যিই তোলপাড় হচ্ছিল এই ভেবে—সেদিনের এক নগণ্য ছাত্রের কাছে আচার্য প্রফুল্লচন্দ্রের পত্র। আমার ঠিকানাটা, পোস্টকার্ডটা পড়লাম—আচার্য লিখেছেন ইংরেজিতে—“তোমার লিখিত ‘সম্পাদকের নিকট পত্র’ পড়লাম এবং আমি তোমার সঙ্গে একমত। তুমি আমার সঙ্গে দেখা করলে সুখী হবো।” আমি তাঁকে সঙ্গে সঙ্গে লিখে দিলাম কবে কোন্ সময়ে তাঁর সঙ্গে দেখা করবো। নির্দিষ্ট দিনে ও সময়ে সায়েন্স কলেজে উপস্থিত হলাম। আমার পরিচয়হিসাবে আচার্য রায়ের আমাকে লেখা চিঠিটা পাঠিয়ে দিলাম। তিনি আমাকে সঙ্গে সঙ্গে ডেকে পাঠালেন। আচার্য আমাকে দেখে একটু আশ্চর্য হয়ে বললেন—“তুমি, আব্দুস সাত্তার—এত ছেলেমানুষ! তুমি কর কি?” আমি বললাম—বি. এ. তৃতীয় বার্ষিক শ্রেণীতে পড়ি। “তোমার বয়স কত?” আমি বললাম—২১ বৎসর। বললেন—“একটু বেশী বয়স হয়ে যায় নি?” আমি বললাম—আমি তো পড়া বন্ধ করে আইন অমান্য আন্দোলনে যোগ দিয়েছিলাম এবং তিনবার জেল ঘুরেও এসেছি। আইন-অমান্য আন্দোলনে যোগদান ও জেল যাওয়ার সংবাদে আচার্য বিশেষভাবে আনন্দিত হলেন এবং তিনি আমাকে কিল-ঘর্ষি মারতে লাগলেন; শুনছিলাম আচার্যের এইটাই নাকি স্নেহপ্রকাশের ভঙ্গী ছিল। বললেন—“তুমি বড় রোগা, তোমায় কোথায় মারবো? তুমি বর্ধমানের লোক—ম্যালেরিয়ায় ভোগে বোধ হয়”—এই বলে তিনি ম্যালেরিয়া নিবারণের জন্যে কয়েকটি উপদেশ দিলেন। আমি চলে আসবার সময় বললেন—“তুমি মাঝে মাঝে এসো— এই পোস্টকার্ডটাই হবে তোমার ছাড়পত্র।”

আমি কলকাতায় বি. এ. পড়াকালীন মাঝে মাঝে আচার্য সন্দর্শনে গেছি। তিনি বাঙালী যুবকদের ব্যবসা-বাণিজ্য করবার উপদেশ দিতেন। একদিন আমাকে বললেন—“তুমি নিশ্চয়ই চাকরি চাওনা।” আমি বললাম—না। তিনি আমাকে বললেন—“জানো, বড়বাজারের একজন ভাটিয়া, মাড়োয়ারি ঘন্টায় কত উপার্জন করে? তোমরা হাইকোর্টের জিজয়াতি করে একমাসে যা পাও, তার চেয়ে ঢের-ঢের, ঢের বেশী।”

আর একদিনের কথা বর্লি; সেদিনকার কথা হল—তখনকার শিক্ষাব্যবস্থার। বললেন—“সেদিন একটা ছেলেকে জিজ্ঞাসা করলাম মীরাত কোথায়? সে আমাকে কি বললো জান? বললে—‘স্যার, আমার তো ভূগোল নাই, ওটা আমার পাঠ্য-বিষয় নয়’।” আচার্য বললেন—“শোন শোন কথা শোন। ভূগোল তার পাঠ্য-বিষয় নয়। আরে—ম্যাট্রিকটা তো এমনিই হওয়া চাই যেটা পড়লে সব বিষয়েই প্রাথমিক জ্ঞানটা হয়—এমনকি বিজ্ঞানের।”

এমনি করে আচার্য প্রফুল্লচন্দ্রের সান্নিধ্যে আসবার সৌভাগ্য হয়েছিল। কয়েকটি দিনের কথা আমার মনের মণি-কোঠায় আজও জ্বলজ্বল করছে।

APPENDIX

SELECTED LETTERS, EXTRACTS FROM DIARY

AND

LIST OF PUBLICATIONS



LETTERS

1. FROM ACHARYA RAY TO SHRI J. N. RAKSHIT

C/o. T. Cook & Sons
LONDON
July 18, 1912.

MY DEAR JITEN,

I have been incessantly occupied with the Congress affairs and I have also had to write everyday dozens of letters and hence I asked Nilratan to find you out and show you my letters to him. The Royal Society Celebrations have also come to a close and I am to sail from Marseilles next week on the 26th instant and expect to reach Calcutta on the 11th or 12th August next.

I have mixed intimately with many eminent chemists and have also visited their laboratories. Sir Henry Roscoe has been taking a good deal of interest in me and the researches in Presy. Coll. Lab.

I hope you will on my return be in a position to devote yourself whole-heartedly to chemistry. I shall gladly make some arrangement for a fair monthly allowance so that you may not be troubled by anxieties. As I have often told you, go on making original researches and the *Arbeit* will be recognized in Germany and in a short time you will be able to secure a Ph.D. I have received all your letters. I am sorry Rasik has not done as well as he expected, but tell him not to lose heart; the research thesis he submitted will count for much. I am not writing to Nilratan separately; please tell him all about it. I have also received a letter from Sir A. T. Mookerjee about the Palit Chair of Chemistry. But I must take the advice of my friends and advanced pupils, before I finally make up my mind.

Yours sincerely,

P. C. RAY

P.S. You have done well in acknowledging on my behalf the congratulatory letters, etc.

2. FROM ACHARYA RAY TO SHRI J. N. RAKSHIT

March 7/16

MY DEAR JITEN,

Am delighted to learn that in your new communication on acid amides you have started a new conception of their constitution. Yes, I think an



ACHARYA PRAFULLA CHANDRA RĀY

alkali metal is more likely to be linked to O. I am looking forward to the issue of the journal containing it. I do not know why you are so fretful over the college of science appts. Only the Professorships and the scholarships (of Rs. 75/- and Rs. 150/- each) have been filled up, but no Asst. Professorship or Demonstratorship—simply because no funds are available. In fact unless Government comes forward with a liberal grant, which I am afraid is not likely for the present, every thing will have to be postponed.

The post you have secured is a coveted one and I feel confident that if God grants you life and health you will in due course earn a reputation as the first Indian chemist authority on opium alkaloids. You know well that in India there is no public opinion worth the name on scientific subjects and hence the undue importance attached to a 'versity degree.

You are already worth a dozen or more M.Sc.s. Go on, persevere in your new field and utilize the unique opportunity presented and rest assured the world will not fail to appreciate you.

Yours sincerely,

P. C. RAY

3. FROM ACHARYA RAY TO SHRI J. N. RAKSHIT

April 6/20

MY DEAR JITEN,

Many thanks for your letter. I have of late been after so many things—going here, there and everywhere, delivering lectures on diverse subjects and answering so many letters that I find my laboratory work has begun to suffer. It is impossible to reply to all criticisms. Sir M. Sadler writes to me appreciating my address and says that the Indianisation of services is absolutely necessary in the interest of the Indians. However, I shall by and by try to answer the criticism. You are perhaps reading in the papers of the congestion in the Passenger Traffic. I am afraid, it will be impossible to secure a berth before August.

Yours sincerely,

P. C. RAY



APPENDIX—LETTERS

4. FORM PROFESSOR F. G. DONNAN TO ACHARYA RAY

University of London, University College,
Gower Street, London, W.C. 1.
2nd March, 1921.

MY DEAR SIR P. C. RAY,

Very many thanks for your letter. I am glad to hear that you have arrived safely in India, and I hope you had a pleasant voyage.

I must thank you most heartily for the very valuable and welcome gift which you have made to me. The two volumes of your "History of Hindu Chemistry" have arrived safely, and they will form a very valuable addition to my library.

I was very interested to read the review from "Isis". The author of the review seems to be a man of sense and intelligence. Your quotation from Dumas' Faraday Lecture is likewise extremely interesting.

Since you left, your Indian pupils and I have had several conferences on the subject of Applied Chemistry, and I have called in several experienced men to give them advice on the matter. I think they will be able to form a fairly good opinion of current ideas on this question in England. Needless to say, these ideas may require some degree of suitable modification to adapt them to the particular necessities of the case in India.

I learn that Dr. Ghosh will soon be leaving us here as he wishes to visit Germany and other places before going to take up his new post at Dacca University. I think Mr. Mukherjee will stay here till the end of June, when I think he will be able to complete his present work. Mr. Bhatnagar will also remain here till the summer.

I wish to tell you again what a very high opinion I have of your former students who are here. There is no doubt whatever that you have, by your constant devotion to teaching and research, created a school of chemistry in India which will be of the greatest importance for the prosperity of that land. I feel certain that you have done work in India of which any man might feel proud in any country, and I offer you again my heartiest congratulations.

There is no doubt that when these troublesome political questions settle themselves, as they are bound to do in time, a future of great prosperity awaits India. This prosperity will depend on many factors, such as the health and happiness of the people, and their suitable adaptation to industrial conditions. But granted that the social and political conditions are healthy and progressive, the fundamental factor of progress will depend on the unceasing progress of pure science and its unceasing application to the building up of human welfare. I regard you as a pioneer in this matter, as well as in the

question of the reform of social conditions, and I think that in ages to come your name will be remembered and honoured as one of the great and most modest pioneers of Indian intellectual, social, and industrial Renaissance. I am not saying these words with any desire to flatter you, but simply to express the opinion of those who know of the work which you have done and continue to do.

Please accept my very best wishes for your continued health and happiness.

Yours faithfully,

F. G. DONNAN

P.S. My mother and sisters desire also to send you their very best regards and wishes.

5. ACHARYA RAY TO DR. J. N. MUKHERJEE

UNIVERSITY COLLEGE OF SCIENCE &
TECHNOLOGY

92, Upper Circular Road, Calcutta.
The 20th April, 1921.

MY DEAR JNAN,

তোমার ২৪শে মার্চ তারিখের পত্র যথাসময়ে পাইয়াছি। ‘বড়’ জ্ঞানকে লইয়া স্তর আশুতোষ তোলপাড় করিতেছেন—breach of faith, contract, ethical principles, etc. গত শনিবার Governing Body-র মিটিং-এ আমার সহিত exchange of high words হইয়াছে। কারণ, তিনি আমাকে মূলীভূত কারণ ধরেন। আমি বলিলাম, “I stand in the loco parentis. আমার ছেলেদের উন্নতির পথে কাঁটা দিতে পারি না। সর্ব্বোপায় যে College of Science join করিতে না পারিলে টাকা ফিরাইয়া দিতে হইবে। আমাদের Univ. একপ্রকার দেউলিয়া—তাহাদের সামান্য বেতন দিয়া আটকাইয়া রাখা জায়গাহিত etc.” অর্থাৎ Dr. Seal চলিয়া গিয়াছেন। রমেশ মজুমদার, হরিদাস ভট্টাচার্য, সত্যেন প্রভৃতি টাকায় বাইতেছেন। আবার রাখাকমল ১০০০—১২০০ বেতনে বধে Univ.-এতে বাইতেছেন। ইহাদিগকে ধরতে-ছুতে পারেন না; কেবল জ্ঞানদ্বয় ও মেঘনাদকে moral obligation ও ethics-এর দোহাই দিয়া আটক করিতে চান। তোমরা যে College of Science-এর Staff-এ রহিয়াছ আর on deputation leave, অতএব অহুমতি ব্যতিরেকে যেতে পার না। Lord Ronaldshay-কে সমস্ত file দেখাইয়া বুঝাইতেছেন। তোমার উপরও দেখিলাম খাপ্পা। বাহা হউক, কিছুমাত্র বিচলিত হইও না। দরকার যদি হয় আমি Lord Ronaldshay-এর সহিত সাক্ষাৎ করিয়া বড় জ্ঞানের বিষয় বলিব। Technological-এর বিষয় সমস্তই পণ্ড হইয়া বাইতেছে। এমন কি হেমেন্দ্রও একটি ক্ষুদ্রাকার workshop করিবার সামান্য টাকা পাইতেছে না। অর্থাৎ তহবিলের সমস্ত টাকা অজ্ঞান নানা ভূতের বাপের শ্রান্তে ব্যয়িত হইয়াছে। ফল কথা, আশুবাবুর সহিত বনিবনাও হইয়া চলা অসাধ্য হইয়া উঠিতেছে। আমার বোধ হয় ক্রমে ক্রমে open revolt দরকার হইবে।

আমি পরশু দিন সন্ধ্যায় (টোঙ্গাইল) জাহ্নবী H. E. School-এর Jubilee উপলক্ষে যাইব। সেখান হইতে ফিরিয়াই আন্দুল যাইব। তাহার পর ২রা মে বাগেরহাট হইয়া দেশে summer vacation উপলক্ষে রওনা হইব।

21. 4. 21.
12 a.m.

এইমাত্র মেঘনাদ ও জ্ঞানের নিকট হইতে 'Berlin Wullenweber Strasse bei Herrn Schmidt' এই ঠিকানায় Mar. 25 ও 22 তারিখের দুইখানা চিঠি পাইলাম। আমিও যে চিঠিখানি enclose করিতেছি তাহা পাঠ করিয়া এবং তোমাকে যে পত্র লিখিলাম তাহাও তাহাদের নিকট পাঠাইবে। লগুন হইতে বার্লিন বোধ হয় দুই দিনে গিয়ে পৌছিবে। আর যে অমৃতবাজার ও সঞ্জীবনী পাঠাইতেছি তাহাও মেঘনাদকে পাঠাইবে।

Yours sincerely,

P. C. RAY

6. FROM ACHARYA RAY TO DRs. J. C. GHOSH AND M. N. SAHA

UNIVERSITY COLLEGE OF SCIENCE &
TECHNOLOGY

Department of Chemistry,

21. 4. 21. 12. a.m.

স্নেহভাজন জ্ঞান ও মেঘনাদ,

এইমাত্র তোমাদের ২২শে ও ২৫শে মার্চ তারিখের পত্র পাইলাম। ইহার পূর্বে মেঘনাদের (direct) ও কানাই-এর মারফত পত্রে সবিশেষ অবগত হইয়া তোমার (মেঘনাদের) কথামত ২১নং ক্রমওয়ার্ড রোডের ঠিকানায় উত্তর দিয়াছি। Einstein, Laue, Planck ও Nernst ইঁহারা প্রত্যেকেই নিজ নিজ বিষয়ে এতো অসাধারণ দেখাইয়াছেন যে ইঁহাদের Nobel Laureate বলিলে বিশেষ খাতির করা হয়না। ইঁহারা “বড়” জ্ঞানের *bahn-brechende Werke* সত্ত্বে যে অভিমত প্রকাশ করিয়াছেন তা জানিয়া আমি হর্ষোৎফুল্ল হইয়াছি। আমার জীবনে আমি এ রকম বিমল সুখ কখনো সন্তোষ করিতে পারি নাই। আমি “ছোট” জ্ঞানের Electrical Conception of Colloids বিষয়ক Faraday Soc. reprint-এর জন্য অপেক্ষা করিতেছি।

বাস্তবিক, বিলাতে Royal Soc. বিষয়ে তুমি যাহা লিখিয়াছ তাহা literally true. এমন কি, নীলরতনের মতো ঠাণ্ডা মেজাজের লোক এবারকার election সত্ত্বে লিখিয়াছেন যে ইঁহারা “হারামজাদা”।

তোমরা তিনজনই যে দেশের মুখোজ্জ্বল করিতেছ তাহা কেবল নীরব সাধনার ফল—এখন আর ফাঁকা আওয়াজ ও হৈ-ঠৈ করার প্রয়োজন নাই। যে ‘অমৃতবাজার’ বাইতেছে তাহাতে Watson বিষয়ক কিছু আছে। বলা বাহুল্য ইঁহা কাহার দ্বারা inspired, “ছোট” জ্ঞানের পত্রে সমুদয় অবগত হইতে পারিবে।

আমার মত এই যে তোমরা উভয়েই বার্লিনে কিছুকাল অবস্থিতি কর। এ প্রকার মনীষীগণের সংস্পর্শে আর জীবনে কখনো আসিতে পারিবে না। বাস্তবিক, দু-একজন বাদ দিলে ইংলণ্ডে সকলেই mediocre. আমরা subject race এই মনে করিয়া বোধ করি তাহারা আমাদের কাজ মন খুলিয়া appreciate করিতে পারে না। গুণী গুণিনং বেত্তি। “গলাভালা” ভিন্ন মন খুলিয়া প্রশংসা করা বিলাতি বৈজ্ঞানিকের অসম্ভব।

Registrar এই মেলে তোমাকে একখানি Calendar পাঠাইবেন। তাহাতে College of Science-এর অধ্যাপক নিয়োগ সম্বন্ধে সমস্তই আছে। এ সপ্তাহের 'সঞ্জীবনী'ও একখানি পাঠাইলাম। অত্রতা মঙ্গল।

জ্ঞানের একবার Sweden যাইয়া বক্তৃতা দিতে পারিলে বড়ই ভাল হয়; বিশেষতঃ Arrhenius এই নূতন theory ভাল করিয়া হজম করিতে পারেন নাই। এ কল্পনা আশা করি কার্যে পরিণত হইবে। আজ এই পর্য্যন্ত; স্নান-আহারের সময় উপস্থিত।

আ: শ্রীপ্রফুল্লচন্দ্র রায়।

7. FROM ACHARYA RAY TO DR. M. N. SAHA

আর. কে. বি. কে. হরিশ্চন্দ্র
ইনষ্টিটিউসন্

পো: আ: রাডুলি

জেলা খুলনা

তারিখ, 24th May, 1921.

My dear Meghnad,

তোমার ১৬ই এপ্রিল তারিখের পত্রে সমস্ত অবগত হইলাম। তুমি নানা স্থান বেড়াইয়া অভিজ্ঞতা ও বহুদর্শিতা লাভ করিয়া এমন কি Germany-র সুধীবর্গের সহিত মিলিয়া মিশিয়া যে লিখিতেছ “বুদ্ধবয়স পর্য্যন্ত এক মনে এক ধ্যানে বিজ্ঞান ও দেশের সেবা কর্তে পারে একরূপ লোকের সংখ্যা ইউরোপেও কম”, ইহা পড়িয়া একটু আশ্চর্য্য হইলাম। I am now three scores years old, কিন্তু laboratory-তে এখনও ছয় সাত ঘণ্টা কাজ করিতে না পারিলে মনে হয় দিনটা বুথা গেল।

তোমার ও জ্ঞান প্রভৃতির কার্যকলাপের দ্বারা একটি মোহ যাহাতে ঘৃণিতে পারে তাহার শীঘ্রই চেষ্টা করিব। অর্থাৎ বিলাতী মাটি স্পর্শ না করিলেও একটি বিলাতী degree “good, bad or indifferent” লইয়া আমাদের দেশের লোকের চোখে ধূলি নিক্ষেপ করার রীতি উঠাইয়া দিবার সংকল্প করিব। দুঃখের বিষয় আশুবাবুর মত লোকও এই মোহাজন্ন।

ইতিপূর্বে তোমাকে জানাইয়াছি যে আমি গত দেড় মাস ধরিয়া গোবরডাঙ্গা, নওগাঁ, গাইবান্ধা, সন্তোষ, টাঙ্গাইল, আন্দুল, বাগেরহাট অঞ্চল অনেক ঘুরিয়াছি। সর্বত্রই ছাত্র ও শিক্ষকবৃন্দের আস্থান। অনেক স্থলে এক এক বক্তৃতায় দুই তিন হাজার লোককে address করিয়াছি। টাঙ্গাইলে সাহা community প্রায় শতবর্ষ ধরিয়া ব্যবসায় শ্রীবৃদ্ধিলাভ করিয়াছেন। কেহ কেহ অনেক ব্যয়ে বিদ্যালয়ের প্রতিষ্ঠা করিয়াছেন।

এবার আমাদের এ-অঞ্চলে অজন্মা হেতু একপ্রকার দুর্ভিক্ষ হইয়াছে। লোকের কষ্টের সীমা নাই। আমরা relief organization লইয়া ব্যস্ত।

জ্ঞানের পত্র পাইয়াছি। তাহাতে জানিলাম যে বিলাতে strike নিবন্ধন যে জাহাজে রওনা হইবার কথা ছিল তাহার পরের ঠীমারে আসিবেন। জ্ঞানের appointment নিয়ে আশুবাবুর বিষয়মূলক কীর্তির বা অপকীর্তির কথা পূর্বেই জানিয়াছি। তিনি ভাংচি দেওয়ার চেষ্টায়



APPENDIX—LETTERS

আছেন। অর্থাৎ ৩০০ বেতনে আজন্ম দাসখত লিখিয়া College of Science-এ থাকিতে হইবে।

অত্রতা মঙ্গল।

Yours sincerely,

P. C. RAY

8. FROM SHRI JOGENDRA NATH BASU TO ACHARYA RAY

10 & 11, ROWLAND ROAD, CALCUTTA.
(Elgin Road P.O.)

৭ ভাদ্র, ১৩৩১ সাল

বিনীত নিবেদন,

আপনার স্নেহপূর্ণ পত্র পেয়ে যে কি পর্যন্ত আহ্লাদিত হয়েছি তাহা পত্রে কেন, উক্তির দ্বারাও, পূর্ণভাবে প্রকাশ করিতে অক্ষম। আমার কুটীরে যে আপনি পদার্পণ করিয়াছিলেন, ও কয়দিন মুষ্টিমেয় আহারে নামের মত সদা প্রফুল্ল ছিলেন, তাহাতে আমার বাটী কেন, বাটীর কর্তা ও গৃহিণী ও অন্যান্য পরিবারবর্গ সকলেই বিশেষরূপে সম্মানিত হইয়াছে, এবং আপনার জ্ঞান মনীষীর সাদাসিধা নির্গর্ব কথোপকথনে ও চালচলনে আমাদের একটা অহুকরণের আদর্শ হয়েছে। কিন্তু চিরজীবন বৈষয়িক স্থখে উন্নত থাকায় এখন খোলস বদলান অসম্ভব, সেইজন্য বিজ্ঞার উৎকর্ষতা দূরে থাকুক, মনের উন্নতি আপনার মত করা বিশেষ অসম্ভব বলে মনে করি।

আপনার খাটুনি বেশ বুঝতে পারি, সে কেবল বিশাল বক্ষ: স্তম্ভ শরীর বলেই সম্ভবপর হয়েছে। ইতিমধ্যে কাগজে আবার অনেক চিঠিপত্র পড়ছি, তা ও-প্রকার ধোঁচা আপনাকে কোনরূপ বিচলিত করতে পারে না, ইহাই আমার বিশ্বাস।

আপনার কটকের বক্তৃতা ধারাবাহিক মতে বহুমতীতে বাহির হইতেছে তাহা বিশেষরূপে পড়িলাম। ও সেদিন টাউন হলে ও মাঠেও আপনার মাঘ ছাতি মুষ্টিও দেখলুম; তবে বেশী যে বক্তৃতা করেন নাই, তাহার জন্ত আপনাকে বিশেষ ধন্যবাদ দিতেছি, কারণ ব্যাঘ্রের মত গর্জন না করলে ওখানে সহজ চীৎকার শ্রুতিগোচর হওয়া অসম্ভব।

আর আমাদের গভর্ণরের কথা কি বলিব, ইংরাজের মনের ভাবটা তিনি খুলেই বলেছেন, এবং অনেক ছাটকোট বা শামলাধারী লোক তাহা যে যুক্তির দ্বারা সমর্থন করিতে প্রয়াস পান, তাহাতে আমাদের এই চাটুকার জাতির প্রতি শ্রদ্ধা বড়ই কমিতে থাকে। বাল্যবিবাহের জন্ত অর্থাভাব ও অলসতায় আমরা বিবেক পদার্থটিকে সমূলে নষ্ট করিয়া আত্ম-সম্মান হারাইয়াছি, এমন কি মা ভগ্নীকে অকথা গালি দিলেও সাহেবমুখপ্রস্থ বলিয়া তাহাকে আশীর্বাদ বলে ধরে থাকি।

দিলীপ বড়ই জ্বরে ভুগেছিল, তাহাকে দুদিন দেখতে গেছলুম, আপনার কাছেও তদ্রূপ কিন্তু আপনি তখন পূর্ববঙ্গে।

অনেক বড় আবল তাবল বকলুম। ধুটতা মাপ করবেন। আগত সোমবার কটক যাব। এ বৎসর উড়িষ্যায় জল নাই, দুর্ভিক্ষ অবশ্যজ্ঞাবী।

বিনীত

শ্রীযোগেন্দ্র নাথ বসু



ACHARYA PRAFULLA CHANDRA RĀY

9. FROM DR. B. N. SEAL TO ACHARYA RAY

Vice-Chancellor's Residence
Mysore.

12th September, 1926.

*Double-Entendre:—

Charaka + Rishi
and
Charakā + Rishi

MY DEAR CHARAKARSHI*

My most grateful thanks are due to you for the copy of the Address to the Teachers' Conference, which bears throughout the stamp and impress of a great soul in travail.

But as you are aware, gratitude is, in essence, 'a lively anticipation of favours to come', and even if this is questioned, the expression of gratitude is unquestionably such.

By sending me therefore a copy of the Address, you have laid me under an obligation to ask for a greater 'favour to come'. I believe the Mysore Government will request you to deliver the Convocation Address to this University in November next (11th November). If this request comes, please do not refuse. It will be a great disappointment to the people of Mysore and the members of the University if you should refuse. We are all anxious to have the great Acharya in our midst.

This is the greater favour to which I began referring.

Trusting this trip to England has improved your health,

Yours affectionately,

BROJENDRANATH SEAL

10. FROM DR. B. N. SEAL TO ACHARYA RAY

Mysore
10th October, 1926.

MY DEAR ACHARYA SAHIB,

Your letter made me very glad. So you are coming, and I shall have you with me for some days.

You will be the honoured guest of the Mysore Government, during your stay here.



APPENDIX—LETTERS

The Registrar will make the official communication.

You are not only a Rishi of the test tube, and of the Charka ;—but like Charaka himself you are also a man of letters.

The Convocation comes off on the 27th November ; there is just a month and a half.

Every body is glad ('rejoices' is the word) that you are coming.

Let me know when you are leaving Calcutta. You must be here before the 24th, I mean, before the date fixed for the meeting of the Council of the Indian Institute.

Yours sincerely,

BROJENDRANATH SEAL

11. FROM ACHARYA RAY TO J. N. RAKSHIT

UNIVERSITY COLLEGE OF SCIENCE &
TECHNOLOGY

Department of Chemistry,
92, Upper Circular Road, Calcutta.

4. 11. 1926

MY DEAR JITEN,

পর পর তোমার সকলগুলি পত্র এবং বাঘ ও সিংহ শব্দের ছবিও যথা সময়ে পাইয়াছি।

তুমি যে বড় ২ জাৰ্মানী ও সুইডেনের হোমরা চোমরা মহারথীদের সংস্পর্শে আসিয়াছ—ইহা ভালই। আশা করি তাহাদের fire ও enthusiasm কিছু কিছু দেশে লইয়া আসিতে পারিবে। শচীন ও তুমি এতদিন প্রবন্ধ হস্ত লিখিয়া ফেলিয়াছ। বাগেরহাটের প্রসন্নবাবু ১৯১১ সালে Darjeeling-এ লিখিত একখানি পত্র ছাপাইয়া দিয়াছেন। আমি যে ইহা তোমাকে লিখিয়াছিলাম—তাহা ঘৃণাকরেও আমার মনে নাই। সেই সময়ের স্বতি এখন আমার মনে পড়িল ;—বিশেষতঃ isolation of nitrites, etc. আর আমাদের ত' দিন ফুরাইয়া আসিতেছে; এখন তোমাদের কাজকর্মের দিকে তাকাইয়া ও তোমাদের উন্নতি দেখিয়া ঘাইতে পারিলে ভালই।

আজকাল কাগজে কেবল election ব্যাপার। কেহ কোন আসল কাজ করিবে না—অথচ কেবল ফাঁকা আওয়াজ। আমরা যে কোথায় পড়িয়া আছি তাহা এখন বিদেশ দেখিয়া শুনিয়া বুঝিতে পারিতেছি। তোমরা কিরিবে কোন লাগাত ?

Yours sincerely,

P. C. RAY



ACHARYA PRAFULLA CHANDRA RAY

12. FROM ACHARYA RAY TO PROF. M. N. SAHA

UNIVERSITY COLLEGE OF SCIENCE & TECHNOLOGY
Department of Chemistry,
92, Upper Circular Road, Calcutta.

Calcutta
4-11-35

MY DEAR MEGHNAD,

তোমার পত্র পাইয়াছি। আশা করি আরও কিছু ক্রমশঃ Bengal Chemical হইতে আদায় করিতে পারিবে।

এবারকার Science & Culture বড় উপাদেয় হইয়াছে। Article গুলি বিশেষজ্ঞ ব্যক্তিগণ কর্তৃক লিখিত হইয়াছে; কিন্তু এই issue দেখিয়া যুগপৎ হরিষ ও বিষাদের উদয় হইল। ইহা one man's hope, একমাত্র তোমারই উৎসাহ ও অধ্যবসায়-প্রসূত। এখানে অনেক বৈজ্ঞানিক আছেন বটে, but there is no driving power in them. তুমি Allahabad হইতেও wireless যোগে battery shock দিতে পার। আমাদের বাঙ্গালীর জাতিগত দোষ এই যে কোন বিশেষ কারণ ঘটিলে কিছুদিনের জ্ঞান জাগ্রত ও উজ্জ্বল হয়, কিন্তু আবার অহিফেনসেবীর ন্যায় ঝিমাইতে থাকে এবং ঘুমাইয়া পড়ে। এমন কি আমার ভয় হইতেছে যে তোমার বিদেশে অবস্থিতিকালে journal-এর অস্তিত্ব বিলোপ না হইলেও quality deteriorate করিবে। আর একটি কথা। ইহার contributors are almost confined to the Bengalees. যাহাতে Northern Indian Scientists attracted হন তাহার বিবিধ চেষ্টা করিতে হইবে। যেমন বীরবল সাহনী (Lucknow)। তুমি প্রথম প্রবন্ধে American millionaires and Indian feudatories ইত্যাদির তুলনা করিয়াছ। একা ex-Holkar সেই dancing girl incident হইতে নিকৃতি পাইবার জ্ঞান প্রায় crore টাকা ব্যয় করিতে বাধ্য হন এবং শেষে গদিচ্যুত হন। আর—এক এক জন মহাপুরুষ বিলাতে গিয়া যে অর্থশ্রদ্ধ করেন তাহা তুমি জান। কিন্তু ইহাদেরই বা দোষ দিই কেন? এই College of Science-এর কল্যাণের জ্ঞান একা Palit ও Ghosh যাহা দিলেন তাহাই first and last. কত উচ্চপদধারী আছেন, যথা : High Court, District & Session Judges, Dy. Magistrates, Munsiffs and Secretariat High Officials, Vakils and Doctoes—ইহারা প্রত্যেকেই কলিকাতা বিশ্ববিদ্যালয়ের নিকট অশেষ ঋণী। কিন্তু কেহই একমাসের মাহিনা পর্য্যন্ত আমাদের দেওয়া উপযুক্ত মনে করেন নাই। অথচ এই শিক্ষিত সম্প্রদায়ই গোড়ীয় মঠ, পাবনা সংসদ ও শিবপুর বৈষ্ণবাচার্য্যের মঠে অজস্র টাকা বর্ষণ করেন।

আমি ইদানীং বেজায় ব্যস্ত। বাঙ্গালীর ভবিষ্যৎ ভাবিয়া হতাশ। Behar, U. P., Oudh, Punjab প্রভৃতি স্থানে বাঙ্গালীরা চাকরীর লোভে যাইয়া একশত বৎসর পূর্বে হইতে colony স্থাপন করিয়াছে। আর তাহাদের বংশধরেরা আজ কোন রকম চাকরী পায় না। তুমিইত বলিয়াছ তাহারা ফতুর—so many paupers. আর বাঙ্গালার দুর্দশাও সেই প্রকার। “নিজ দেশে পরবাসী” হইতে চলিল। কলিকাতার বড়বাজার, চিত্তরঞ্জন এভিনিউ বাদ দিলেও নূতন যে মানিকতলা street যেমন বিবেকানন্দ রোড, সেখানেও বড় বড় ৫-তলা বাড়ী উঠিতেছে সবই মাড়োয়ারী ভাটিয়ার। কলিকাতার মাড়োয়ারীরা, যথা নাগরমল সুরমল প্রভৃতি, একক (i. e.

not as joint stock company) ১৫ লক্ষ, ১৮ লক্ষ দিয়া ৩৪ টি বৃহৎ sugar mill করিয়াছে কিন্তু আমরা sixteen percent protection পাইয়াও কিছুই করিতে পারিলাম না। এখন দেখিতেছি সমস্ত জমিদারীও ক্রমশঃ অবাদ্দালীর হাতে যাইতে বসিল ইত্যাদি। এইসব ভাবিয়া আমি শেষ জীবনে বড়ই উদ্বিগ্ন ও হতাশ। সম্প্রতি অল্পসমগ্রা ও বাদ্দালীর পরাজয় বলিয়া একখানা বই লিখিতেছি। তাহাতে কেন বাদ্দালী সঙ্গক্ষেত্র হইতে জীবন সংগ্রামে হটিয়া যাইতেছে তাহার সবিশেষ আলোচনা করিতেছি।

জ্ঞান ইউরোপ হইতে ফিরিয়া আসিয়াছেন। এখন আশা করি Science & Culture-এ মনোনিবেশ করিতে পারিবেন। যাহাতে আরও Life-member এবং Tropical School of Medicine প্রভৃতি হইতে মাঝে মাঝে contribution পাওয়া যায় সেই বিষয়ে তাহাকে যত্নবান করিতে হইবে।

অন্ত এই পর্য্যন্ত।

Yours sincerely,

P. C. RAY

13. FROM ACHARYA RAY TO DR. S. S. BHATNAGAR

2-12-1935

MY DEAR S. S.,

I have long taken practical leave of the latest developments of chemistry and physics. It is only by occasional conversation with my colleagues in the Inorganic Chemistry Department, namely, Priyadarajan and Pulin Behari, that I try to keep myself informed of the outlines of the up-to-date developments, for instance, the transmutation of the lighter atoms, e.g., B, Si, Al, etc. by Curie-Joliot. During the last 7 or 8 years, I have even ceased to glance through "Nature" except very rarely. In the "Nature" of October 12, of this year there is a readable and suggestive article by Prof. Armstrong, which occupies the place of honour—namely, "Food, Farmer and Future"; my attention was drawn to it by a chemist of the biochemical department of Bengal Chemical. On turning over the pages my eyes chanced across an advertisement of MacMillan's in which I find your book at last advertised. Of course, I have neither the time nor the capacity to judge the merits of the work; but I take for granted that in it your own researches occupy a prominent place and as such it is not a mere compilation. That the book is of a high standard is indicated by the recent excellent review in "Current Science" by one who is competent to judge.

As far as I know Meghnad's is the only textbook in physical science which has been adopted by foreign Universities; and it gladdens my heart that another work in physical science is likely to occupy a similar place.



My days are practically numbered, and it is a great consolation that you in Chemistry are trying to raise the reputation of the Indian workers abroad.

Yours sincerely,

P. C. RAY

14. FROM ACHARYA RAY TO DR. S. S. BHATNAGAR

University College of Science and
Technology
Department of Chemistry,
92, Upper Circular Road,
Calcutta, 12-12-1935.

MY DEAR S. S.,

Very glad to receive your letter and also your book. Needless to say, after Priyada has reviewed it in our journal I shall make a present of it to the library of the Chemical Society. Of course, MacMillan's printing leaves nothing to be desired. But that is not the point. What gladdens me is that you have associated so many of your pupils in this field, nay there are two Bengalis in your laboratory working under you. I find that you have done full justice to D. M. Bose's contributions and have devoted a special section to Priyadaranjan's.

One feature of your character comes out prominent, namely, that you are unstinted in your acknowledgement of the contribution of the Indian workers—a feature which is unfortunately wanting in some researchers.

I am not at all surprised at your complaint of the jealousy betrayed by some of your friends. It is a characteristic feature of Indians—and I may add, of orientals—that they want to drag down those who have acquired some sort of eminence to their own level—whereas in Europe, it is generally the custom*to carefully study the ways by which one acquired eminence and try to emulate it. But pray, don't be bothered by such pettiness. Any good work done carries its own reward and even recognition—though it may be sometimes belated. The way in which you are associating and inspiring a band of young workers extorts our admiration. A better and more patriotic use could not have been made of the money which you have earned from the oil company and which you have made over to the University for research purposes.

You hint at my provincialism, but underneath it there is a bitter cry over the indolence and lack of enterprise of every class of the Bengali. For instance, I am writing in Bengali a small book pointing out the failure of the Bengalis in every branch of trade, commerce and business in general. For

example, I am illustrating it by referring to the fact that in Lahore, at the Mall which is something like the Chowringhee of Calcutta, practically all the houses and business are owned and managed by the Punjabis themselves. Similarly at Anarkali, which is something like our Burrabazar, the Marwaris are simply conspicuous by their absence, whereas in Calcutta in Burrabazar the Marwaris and Bhatias (Guzrati) have monopolized all the import and export business. In Calcutta again, all the bus and taxi drivers are Sikhs and some of the big railway contractors in the E.B. Line are Punjabis. I instance these not out of jealousy but to draw pointed attention of Bengali's ineptitude. For instance, I am writing a short sketch of the career of Seth Ghanashyamdas Birla—how he began at 17 in Calcutta. He is now only 41. Within this quarter of a century he, in fact (jointly as Birla Bros.), has built up a magnificent business embracing various branches, e.g., jute mill, cotton mill, hessian and silver deals. You know also that the Birla Brothers have donated altogether six lacs to the Hindu University and their charities in various other directions are unbounded. If I allude to the Marwaris and Bhatias, it is not to excite jealousy but to open the eye of the Bengalis. One or two more instances will suffice. According to the latest census report drawn up by Hutton, by money order alone some six crores are annually remitted from Bengal by the labourer classes, chiefly Beharis. In my "Life and Experiences" I have pointed out that to the district town of Saran every year a crore of rupees is remitted by money orders; and this is also borne out by the census report. Our cooks and household servants are almost entirely recruited from Orissa, Behar and U.P., showing that we ourselves have to engage them because corresponding classes of the Bengalis are idle and incapable. Twelve crores we have to remit to the Bombay and Ahmedabad millowners and more than two crores to the insurance companies there. I have given in my book an estimate of ten crores per month, i.e., 120 crores per year—drained away by the non-Bengalis excluding Europeans—from unhappy Bengal.

I have, repeatedly, to point out these out of agony but not out of jealousy. If a Bengali, often domiciled, were to get a Government job worth 50 or 100 rupees, a hue and cry is raised by the Oriyas and Beharis though the economic conquest of Bengal is almost complete by these very people.

I hope you will now understand my position.

Yours sincerely,

P. C. RAY



ACHARYA PRAFULLA CHANDRA RĀY

15. FROM ACHARYA RAY TO MR. W. C. WORDSWORTH

(1936)

DEAR MR. WORDSWORTH,

I think you remember that a year or more ago a communally-minded Moslem brought a resolution in the Bengal Council to the effect that as the Moslems form the majority of the population of Bengal they should have proper representation in the Senate and Syndicate of the Calcutta University. Syamaprasad Mookerjee no doubt gave a crushing reply; but your speech was *the speech* on the occasion. Being neither a Hindu nor a Moslem and with your vast experience in the educational line you could speak with commanding authority. Incidentally, you said some funny things, namely, that the Scotch people are swamping the Government both at 'Home' and also here in the Legislative Council, etc. Not only was the Prime Minister a Scotsman, but even several members of the local Government hailed from Caledonia. The enclosed extract from Bernard Shaw also re-echoes what you said. Now Bernard Shaw is regarded as perhaps the greatest of the living writers—he is certainly a great mind. And as you think alike with him, *ergo*, you are a great mind!

Now to come to the point. The above only are aside. The other day at the 'At Home' given to Sir Richard Gregory (at MacMillan's) at which you were present, Mr. and Mrs. Stapleton told me that they were both enjoying my book. Fermor (Geological Survey) and Wolfenden also told me the same. Yesterday, the Italian Consul called on me and incidentally said that he was reading my book right through. Sir Daniel Hamilton also told me the same.

I enclose a synopsis of some of the selected opinions on the book. The 'Madras Mail' though it takes care to point out that 'it does not see eye to eye with the author' is eloquent in its appreciation of my humble work. But how is it that the 'Statesman' maintains discrete silence? Perhaps it thinks that it will have to say some very hard things. But something is better than nothing. 'Paint me as I am', said the great Protector to Leby the painter, 'if you leave out the scars and carbuncles, I shall not pay you a farthing.' So let the blemishes as also the redeeming features, if any, be pointed out and the golden silence broken!

Yours sincerely,

P. C. RAY

W. C. WORDSWORTH ESQ., M.A.
Statesman Office
5 & 6 Chowringhee Road
Calcutta

16. EXTRACTS FROM A LETTER OF ACHARYA RAY WRITTEN
TO A COLLEAGUE IN B.C.P.W.

(1940)

When I founded the B.C.P.W. I had not only the idea of wiping out the reproach that the Bengalees were good for nothing in business affairs, but also of making it a model institution. The Bengal Chemical has not been to me a mere dividend-earning machine—though certainly it is an important thing—but also of showing how amicable relations can be maintained between capitalism and labour. I again repeat that our servants, from ill-paid officers to the labourers, by no means enjoy an enviable lot. We are paying one month's salary after 10 years' service, and a half a month's salary after 5 years. But the other day at the Bengal Potteries Mr. Bhagat and the Directors agreed that one month's salary should be given as bonus after 5 years' service and half a month's after 3 years, and so on, and this includes not only the officers but also the labourers and coolies. It is to be remembered that the Potteries under the *new* management is only three years old and has not yet given any dividend.

Last week, I was invited by the Batas to visit their works. I was surprised to find neatness and cleanliness pervading everywhere. Every worker looked cheerful and contented and even the meanest draws Rs. 5/4/- per week and then upwards from Rs. 8/- to Rs. 10/-, and Rs. 10/- to Rs. 15/- and so on, and the foremen and supervisors get as much as Rs. 100/-, Rs. 150/- and Rs. 250/-. The labourers' quarters are a marvel to visitors.

As I have repeatedly told you Morris (now Lord Nuffield), Austin, Cadbury and several others have done wonderful things for the uplift of the workers, but the dividend-mania and the screwing endeavour of the Directors have given the lie to my lifelong cherished ideal.

17. ত্রিজ্যোতিশ চন্দ্র ঘোষের কল্যাণীমতী নিশারাপীর শুভবিবাহে আচার্য প্রফুল্লচন্দ্রের
আশীর্বাদ লিপি (১৬ই ফাল্গুন, ১৩৩৮ সাল)।

এবে হু হবকা কল্যাণীমতী

শ্রী প্রফুল্ল চন্দ্র

(1)

১১ই মাঘ — ৬৬তম মাঘোৎসব Jan. 24. 96

অবিপ্রাপ্ত নানা কাজে ব্যস্ত থাকি — এমন কি একটুও অবকাশ পাই না ; কিন্তু ইহার মধ্যে মনে কেমনই এক প্রকার অশান্তি । বৃষ্টিতে পারিতেছি রূপাময়ের উপর নির্ভরতা ভিন্ন এজগতে প্রকৃত শান্তি নাই । এই যে এত ব্যস্ততায় নিমগ্ন থাকি — ইহার মধ্যে ঈশ্বরের সহবাসে কিয়ৎকাল যাপন করিতে ত প্রয়াসও পাইনা — কি প্রকারেই বা প্রকৃত স্থখের অধিকারী হইব ?

Text of Pandit Sastri's sermon : "ye are as the salt of the earth" । বুদ্ধি নামবীরি — হৃৎসর সন্নিবিষ্ট । মর্কট ঈশ্বর আশ্রয় সম্মুখে রাখা — — স্তম্ভ ভাঙ্গা দাঁড়িতে প্রকৃত হৃৎসর প্রতি বুদ্ধিবীর — কুতূহল ।

(1)

১১ই মাঘ — ৬৬তম মাঘোৎসব, Jan. 24. 96

অবিপ্রাপ্ত নানা কাজে ব্যস্ত থাকি — এমন কি একটুও অবকাশ পাই না ; কিন্তু ইহার মধ্যে মনে কেমনই এক প্রকার অশান্তি । বৃষ্টিতে পারিতেছি রূপাময়ের উপর নির্ভরতা ভিন্ন এজগতে প্রকৃত শান্তি নাই । এই যে এত ব্যস্ততায় নিমগ্ন থাকি — ইহার মধ্যে ঈশ্বরের সহবাসে কিয়ৎকাল যাপন করিতে ত প্রয়াসও পাইনা — কি প্রকারেই বা প্রকৃত স্থখের অধিকারী হইব ?

Text of Pandit Sastri's sermon : "ye are as the salt of the earth." ব্রাহ্মনামধারী হওয়ার দায়িত্ব । সর্বদা উচ্চ আদর্শ সম্মুখে রাখা — খাস ত্যাগ করিতে প্রস্তুত হওয়া প্রতি ব্রাহ্মরই কর্তব্য ।



(2)

১১ই মাঘ—৬২ ব্রাহ্মাব্দ—Jan. 24, 1899

Text of Pandit Sastri's sermon based upon
"I will arise and go to my father" from the parable
of the prodigal son.

কলভঙ্গুর পাখিব বিষয় লইয়া অহোরাত্র বাস্ত থাকি—আমার স্বপ্নের জন্ত এটা চাই—ওটা
চাই—না হলে চলে না—ছেলেপিলের জায় সদা এই ভাবই পোষণ করি—কাজেই শান্তি পাই না।
অনিভ্যার মধ্যে যাহা নিত্য সেই দিকে মনের গতি ফিরাইতে চেষ্টা করি না। কর্তব্য সাধনে,
পরের দুঃখ সাধ্যানুসারে বিমোচনে ত্রুতী হইয়া জীবন পথে অগ্রসর হও। ইহাই প্রকৃত স্বপ্ন ;
জীবনে এমন দুই একটি ঘটনা ঘটয়াছে যাহাতে বুদ্ধিতে পারিয়াছি কৃপাময় ঈশ্বর অঙ্গুলি
নির্দেশ করিয়া পথ দেখাইয়াছেন। ব্রহ্ম কৃপা হি কেবলং।

(2)

১১ই মাঘ—৬২ ব্রাহ্মাব্দ—Jan 24, 1899

Text of Pandit Sastri's sermon based upon "I will arise and go to my
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কলভঙ্গুর পাখিব বিষয় লইয়া অহোরাত্র বাস্ত থাকি—আমার স্বপ্নের জন্ত এটা চাই—ওটা
চাই—না হলে চলে না—ছেলেপিলের জায় সদা এই ভাবই পোষণ করি—কাজেই শান্তি পাই না।
অনিভ্যার মধ্যে যাহা নিত্য সেই দিকে মনের গতি ফিরাইতে চেষ্টা করি না। কর্তব্য সাধনে,
পরের দুঃখ সাধ্যানুসারে বিমোচনে ত্রুতী হইয়া জীবন পথে অগ্রসর হও। ইহাই প্রকৃত স্বপ্ন ;
জীবনে এমন দুই একটি ঘটনা ঘটয়াছে যাহাতে বুদ্ধিতে পারিয়াছি কৃপাময় ঈশ্বর অঙ্গুলি
নির্দেশ করিয়া পথ দেখাইয়াছেন। ব্রহ্ম কৃপা হি কেবলং।

(3)

New Year's Day, 1912

One eventful year in my career has just closed. Last year spent this time and later on the repeated relapse of malarial fever filled me with shame and grief not on my personal account but because of the investigations on the malarial parasites, which I feared might be deemed improper with. It has pleased the Almighty Father to restore me to my health so that I might carry on the destined work.

Perhaps the wisest and most fruitful year of my activities in the research work. A whole band of youths devotedly attached to chemistry for its own sake have gathered round me and regarded them as the most precious gift of God.

The B.C. P.W. affairs fairly looking up and the money matter should be decided.



APPENDIX—EXTRACTS FROM DIARY

(3)

New Year's day, 1912

An eventful year in my career has just closed. Last year about this time and later on the repeated relapse of malarial fever filled me with grave anxiety, not on my personal account but because of the investigations on the amine nitrites, which I feared might be severely interfered with. It has pleased the beneficent Almighty Father to restore me to my health so that I might carry on the destined work.

Perhaps the busiest and most fruitful year of my activities in the research work. A noble band of youth devotedly attached to chemistry for its own sake have gathered round me and I consider them as the most precious gift of God.

The B.C.P.W. affairs fairly looked up and the management should (be) decided.

* * * *

(4)

APRIL 27, 1922

জীবনটা স্বপ্নবৎ চলিয়া গেল—এখনও স্রোত প্রবাহিত। শীঘ্রই সমুদ্রে লীন হইয়া যাইবে। সকাল বেলা এই লেখার পর বড় দাদার পত্রে জানিলাম মেজদা ৬ বৎসর পর হৃদরোগে অভিভূত। Attack persistent.

* * * *

(5)

FEBRUARY 18, 1923

Received the news of the death of my elder brother. Was quite prepared for it. I too must be prepared for the exit. It is time to wind up our affairs in this land of sojourn.

* * * *

(6)

MAY 20, 1923

Returned from Bagerhat and Daulatpur. Personal contact with young men has an exhilarating effect on me. The youth also imbibed my own life-long experience. Never felt happier in life.



ACHARYA PRAFULLA CHANDRA RĀY

(7)

MAY 31, 1924

10 a.m. Hoisting of the National flag. Sent for with a tom tom. Accident on the road. The projecting belt with the nut entangling the string. So the car and the horse could not move on but remained fixed. Myself and my messenger thrown over the barbed wire fencing. Some bruises — wound $\frac{1}{2}$ inch deep. Luckily Dr. J. N. Sen Gupta and the dispensary ready at hand. Miraculous escape. Thanks to Providence.

* * * *

(8)

JUNE 21, 1924

যে নূতন আলোক পায় তাহার দায়িত্ব চূপ করিয়া থাক।

* * * *

(9)

APRIL 8, 1925

I now discovered that I had many points in common with Carlyle. Habit of thrift — supreme contempt for fashionable life, cant and hypocrisy.

* * * *

(10)

MAY 19, 1926

Yesterday at 11 a.m. went to the press to see about the Chem. Journ. publication. Then had a talk with Rajsekhar about B.C.P.W. affairs. A short time at the Lab. Shortly after the mid-day meal went to the B.C.P.W. and then Beng. Misc. factories. Engagements with Satyendra Roy arranged by Prafulla Ghosh and Satish. Kept busy here uptill 7.15 p.m. মাথা গোল ; went to Maidan. But had a bad night as anticipated. This morning at 9 a.m. to go out for Bangiya Steam Navigation Co. shares.

* * * *

(11)

MARSEILLES, JULY 30, 1926.

Hotel de Neailles (110 fr. a day)

১৮ই জুন এখানে নামি। আবার আজ স্বদেশে যাত্রা করিব। পরন্তু রাতে ও কালি ৪টা পর্যন্ত বেজায় উবেগে কাটাইয়াছি।

Luggage missent — the service rendered by the steamship sub-agent — and the reward I offered. The loss of Mss. would have been severely felt as also of the choice of books in whose company I found my chief relief and solace.

* * * *

(12)

APRIL 17, 1927

If one regularly gets up at 5-30 a.m. and sits down with his books at 6-30, he has always ample time at his disposal to do multifarious things provided each is done at the proper time.

* * * *

(13)

Nov. 27, 1930

I have all along been a speedy worker in all the items in Mahatmaji's programme. Only to quote his own words: from "Null to Khaddar". My Presidential address at the special Conference at Wardha, where Mahatmaji himself was present will bear it out. Hence I kept my head cool — it was no case of a "conversion" and a sudden plunge into the movement with the zeal and enthusiasm born of the time. I realized that the long expected time had come to do my bits — hence I travelled some 150,000 miles through the length and breadth of the land. One thing struck me while I was busy with the operation in connection with flood relief. I got almost simultaneous invitations from the authorities of the Moslem National University as also from Principal Gidwani to lay the foundation of the *Vidyapeeth*.

* * * *

(14)

DEC. 1, 1930

In the art of earning his bread, the Bengali is hopelessly a failure — every one thrives more — except the children of the soil.

In the pursuit of an ideal, he has cheerfully mounted the scaffold, swung from the gallows — has performed prodigious deeds of valour, then again for social service requiring devotion and sustained energy for years, he has not as yet developed any liking or interest.

* * * *

(15)

JANUARY 8, 1931

As a chemist, I hope, I have not failed to do justice to the chemical side of my career; as an educationist, I have tried my best to bring into relief the glorious defects in our present educational system, which is mainly responsible for the failure of the Bengali.

* * * *

(16)

MADRAS :—JUNE 16, 1931

বিমান (Dr. B. B. Dey) :—বাংলার বাহিরে বাঙ্গালী ; এক generation পরে influence যায়—বরং jealousy বাড়ে for the scramble for few posts. কিন্তু ব্যবসায় তা হয় না।

* * * *

(17)

AUGUST 28, 1933

সকালবেলাই কানে ইংরাজী আওড়ান পৌছিল—ছেলেগুলার এই torture কেবল ইহাদের guardian-দের নিবৃত্তিতার ও অপরিণামদর্শিতার ফল। Moral—চাকরী উপজীব্যই ইহার মূলীভূত কারণ : hence শক্তি ও সামর্থ্যের অপচয়।

ভুষণ বলে গলায় ফাঁস।

* * * *

(18)

AUGUST 31, 1933

In England, education has been a part and parcel of general progress and culture — it has been a sort of original growth so to speak (cf. Trandej's Carlyle). Whereas in India western education has been synonymous with securing the loaves and fishes in the official hierarchy.

* * * *

(19)

SEPTEMBER 12, 1933

B. Com.—খেচ্ছাকৃত ফাঁদে পা দেওয়া আশ্বস্তারণ। ভালওয়াল ও ভূণিওয়াল কত টাকা লুট করে—ইতরশ্রেণীর মধ্যে সে ভাবে পর্দা নাই—জ্বেলনী ও তরকারি বিক্রিওয়ালী।

* * * *

(20)

MARCH 30, 1934

No body suggests that the British rulers have injected the virus of T.B. into the blood of the people under some pretext or other cause, but what is clear that the sudden onrush of the process of "Civilization" amongst our college educated people has the result of making them leave their village homes and seek ill-paid clerkships in town, compelling them to live in squalid, ill-ventilated dingy holes, &c.

বড় বড় সহরে ২৪টি হাসপাতাল দেখাইয়া বাহবা লওয়া, কিন্তু কোটি কোটি লোক যে কীট-পতঙ্গের মত জীবনাহতি দিতেছে তাহার কি ?

* * * *



PUBLICATIONS OF ACHARYA PRAFULLA CHANDRA RĀY

A — ENGLISH

(1) — BOOKS

1. *India before and after the Mutiny*, Edinburgh, 1885.
2. *Essay on India*, Edinburgh, 1886.
3. *Chemical Research at the Presidency College*, Calcutta Hare Press, 1895, 1897.
4. *A History of Hindu Chemistry*,
VOL. I., Bengal Chemical and Pharmaceutical Works Ltd., Calcutta, 1902.
Do (revised), William and Norgate, London, 1904.
VOL. II., Bengal Chemical and Pharmaceutical Works Ltd., Calcutta, 1909.
Do (revised), Chuckervetty, Chatterjee and Co. Ltd., Calcutta, 1925.
5. *Elementary Inorganic Chemistry*, Calcutta, 1909; 2nd Edition, 1910.
6. *Bengali Brain and its Misuses*, City Book Society, Calcutta, 1910.
7. *Essays and Discourses*, G. A. Natesan and Co., Madras, 1918.
8. *Desi Rang*, Chuckervetty, Chatterjee and Co. Ltd., Calcutta, 1922.
9. *Makers of Modern Chemistry*, Chuckervetty, Chatterjee and Co. Ltd., Calcutta, 1925.
10. *The Discovery of Oxygen*, Calcutta University, 1926.
11. *Radha Charan Pal — a Study*, Calcutta, 1931.
12. *Life and Experiences of a Bengali Chemist*,
VOL. I (1932) and VOL. II (1935), Chuckervetty, Chatterjee and Co. Ltd., Calcutta.

(2) — ARTICLES AND BOOKLETS

1. Presidential Address at the 31st National Social Conference, December 30, 1917.
2. Presidential Address at the Assam Students' Convention (4th Session), 1919.
3. Presidential Address at the Indian Science Congress Association, 1920.
4. The Spirit of Khaddar as I understand, *The Indian Review*, 1922.
5. Convocation Address at the Jamia Millia Islamia College, Aligarh, February 7, 1923.
6. Message of Khaddar—Presidential Address at the Opening Ceremony of Khadi Exhibition, Cocanada, December 25, 1923.
7. Presidential Address at the Utkal Provincial Conference, Calcutta, 1924.
8. Speech as Chairman, Reception Committee, Hindu Mahasabha (8th Session), Faridpur, 1924.
9. Presidential Address at the Rural Welfare Association of the First Social Service Conference, Calcutta.
10. Convocation Address at the University of Mysore, January 27, 1926.
11. Presidential Address at the All Bengal College and University Teacher's Conference, Calcutta, August 29, 1926.
12. Presidential Address at the Divisional Co-operative Conference, Dacca, January, 7-8, 1927.
13. Chitta Ranjan — a Beggar Prince, *Forward*, Deshabandhu Number, 1927.
14. Presidential Address at the Sixteenth Bombay Provincial Co-operative Conference, Bombay, March 2, 1929.
15. Gospel of Swadeshi — Address at the Opening Ceremony of the Lahore Exhibition organized by the Indian National Congress, December 20, 1929.



ACHARYA PRAFULLA CHANDRA RĀY

16. Dignity of Labour taught at the Government Agricultural Farm, *Modern Review*, Calcutta, 1929.
17. My Message of Swadeshi — Address at the Swadeshi Exhibition, Madras, July 15, 1930.
18. Swaraj as Handmaid of Swadeshi — Address at the Classified Trade Organization, Bombay, August 25, 1930.
19. Convocation Address at the Benaras Hindu University, Benaras, December 11, 1930.
20. Address at the Opening Ceremony of the Indian National Swadeshi Exhibition, Poona, January 31, 1931.
21. Address at the Opening Ceremony of the All India Khaddar Exhibition at Trichinopoly, March 8, 1931.
22. Exhibition — its Place in our Industrial Regeneration — Address at the All India Exhibition at Karachi.
23. Lectures on the Industrial Development of India at the Nagpur University, Nagpur, November 24-26, 1932.
24. Swadeshi and Economic Salvation — Address on the Occasion of opening the Swadeshi Exhibition, Indore, January 12, 1933.
25. Swadeshi and Revival of Home Industries — Address at the Opening Ceremony of the All India Industrial Exhibition at Delhi, March 1, 1933.
26. Presidential Address at the All Travancore Youth Conference, Travancore, March 17, 1933.
27. Presidential Address at the Indian Insurance Conference, Lahore, April 3, 1934.
28. Victor Jacquemont on Rammohun Roy, *Calcutta Review*, October, 1936.
29. Presidential Address at the Silver Jubilee Celebration of the Marwari Education Society, Wardha, October 20, 1937.
30. The Shakespearean Puzzle—Endeavour after its Solution, *Calcutta Review*, 1939, 1940, 1941.
31. Presidential Address at the Founder's Day of the Medical College, Calcutta, February 20, 1940.

The Scientific papers and publications of Acharya Ray are not included in the list above. These will be found in the Obituary Notice published by the Indian Chemical Society after his death in 1944.—Ed.

APPENDIX — LIST OF PUBLICATIONS

B — BENGALI

(1)—BOOKS

- ১। সরল প্রাণিবিজ্ঞান। চেম্বার প্রেস, কলিকাতা, ১৯০২
- ২। নব্যরসায়নী বিজ্ঞা ও তাহার উৎপত্তি। বঙ্গীয়-সাহিত্য-পরিষৎ, কলিকাতা, ১৯০৬
- ৩। বাঙ্গালীর মস্তিষ্ক ও তাহার অপব্যবহার। বঙ্গীয়-সাহিত্য-পরিষৎ, কলিকাতা, ১৯১০
- ৪। রাসায়নিক পরিভাষা। সহ-গ্রন্থকার শ্রীপ্রবোধ চন্দ্র চট্টোপাধ্যায়। বঙ্গীয়-সাহিত্য-পরিষৎ, কলিকাতা, ১৯১২
- ৫। সমাজসংস্কার সমগ্র। বেঙ্গল কেমিকেল প্রেস, কলিকাতা, ১৯১২
- ৬। জাতিভেদ ও পাতিত্যা-সমগ্র। বেঙ্গল কেমিকেল ষ্টীম প্রেস, কলিকাতা, ১৯২০
- ৭। অন্নসমগ্র। কলিকাতা, ১৯২০, ১৯২২
- ৮। অধ্যয়ন ও সাধনা। মডার্ন পাবলিশিং হাউস, কলিকাতা, ১৯২০, ১৯৩০
- ৯। জাতিগঠনে বাধা—ভিতরে ও বাহিরে। চক্রবর্তী-চাটাজ্জী এণ্ড কোং, কলিকাতা, ১৯২১
- ১০। দেশী রঙ। চক্রবর্তী-চাটাজ্জী এণ্ড কোং, কলিকাতা, ১৯২২
- ১১। বস্ত্রসমগ্র। বেঙ্গল কেমিকেল ষ্টীম প্রেস, কলিকাতা, ১৯২২
- ১২। মিথ্যার সহিত আপোষ ও শাস্তিক্রয়। চক্রবর্তী-চাটাজ্জী এণ্ড কোং, ১৯২৫
- ১৩। আচার্য প্রফুল্লচন্দ্রের প্রবন্ধ ও বক্তৃতাগুলি (১ম ভাগ—তৃতীয় সংস্করণ)। চক্রবর্তী-চাটাজ্জী এণ্ড কোং, কলিকাতা, ১৯৩৮
- ১৪। আচার্য প্রফুল্লচন্দ্রের প্রবন্ধ ও বক্তৃতাগুলি (২য় ভাগ)। চক্রবর্তী-চাটাজ্জী এণ্ড কোং, কলিকাতা, ১৯৩১
- ১৫। চা-পান ও দেশের সর্বনাশ। কলিকাতা, ১৯৩২
- ১৬। অন্নসমগ্র বাঙ্গালীর পরাজয় ও তাহার প্রতিকার। চক্রবর্তী-চাটাজ্জী এণ্ড কোং, কলিকাতা, ১৯৩৬, ১৯৪০
- ১৭। জাতীয় মুক্তির পথে অন্তরায়। চক্রবর্তী-চাটাজ্জী এণ্ড কোং, কলিকাতা, ১৯৩৬, ১৯৪০
- ১৮। খাদ্য-বিজ্ঞান। সহ-গ্রন্থকার শ্রীহরগোপাল বিশ্বাস, চক্রবর্তী-চাটাজ্জী এণ্ড কোং, কলিকাতা, ১৯৩৬
- ১৯। বিশ্ববিদ্যালয়ের তত্ত্বা ও শিল্প ও ব্যবসায়ে কৃতিত্বলাভ। কলিকাতা, ১৯৩৭
- ২০। আত্মচরিত। চক্রবর্তী-চাটাজ্জী এণ্ড কোং, কলিকাতা, ১৯৩৭
- ২১। হিন্দুরসায়নী বিজ্ঞা (শ্রীভবেশ চন্দ্র রায় কর্তৃক সংকলিত)। কলিকাতা, ১৯৩৭
- ২২। আচার্য বাণী (৩ খণ্ডে সমাপ্ত—শ্রীপ্রসন্ন কুমার রায়, বি. এ. কর্তৃক সংকলিত)। বুক করপোরেশন লিমিটেড, কলিকাতা, ১৯৫৩, ১৯৫৫

(2)—PAMPHLETS AND ARTICLES

- ১। বৈজ্ঞানিক জগতে ভারতের স্থান নির্ণয়। সহ-লেখক শ্রীপ্রিয়দারঞ্জন রায়। প্রবাসী, কলিকাতা, আষাঢ়, ১৩২২, পৃ: ৩১৫
- ২। ভোগের অনাচার। প্রবাসী, কলিকাতা, আষাঢ়, ১৩২২ বাং, পৃ: ৪৭৫
- ৩। শুভমস্ত। প্রকৃতি (১ম বর্ষ), কলিকাতা, ১৩২২ বাং, পৃ: ১-৪
- ৪। প্রাণিদের দংশন কাহাকে বলে। প্রকৃতি (১ম বর্ষ), কলিকাতা, ১৩৩১ বাং, পৃ: ২৮৩—২২০
- ৫। প্রকৃতির আচ্ছাদন। প্রকৃতি (২য় বর্ষ), কলিকাতা, ১৩৩২ বাং, পৃ: ১-৩
- ৬। প্রার্থনা। প্রকৃতি (২য় বর্ষ), কলিকাতা, ১৩৩২ বাং, পৃ: ২৮৫-২৮৬

ACHARYA PRAFULLA CHANDRA RAY

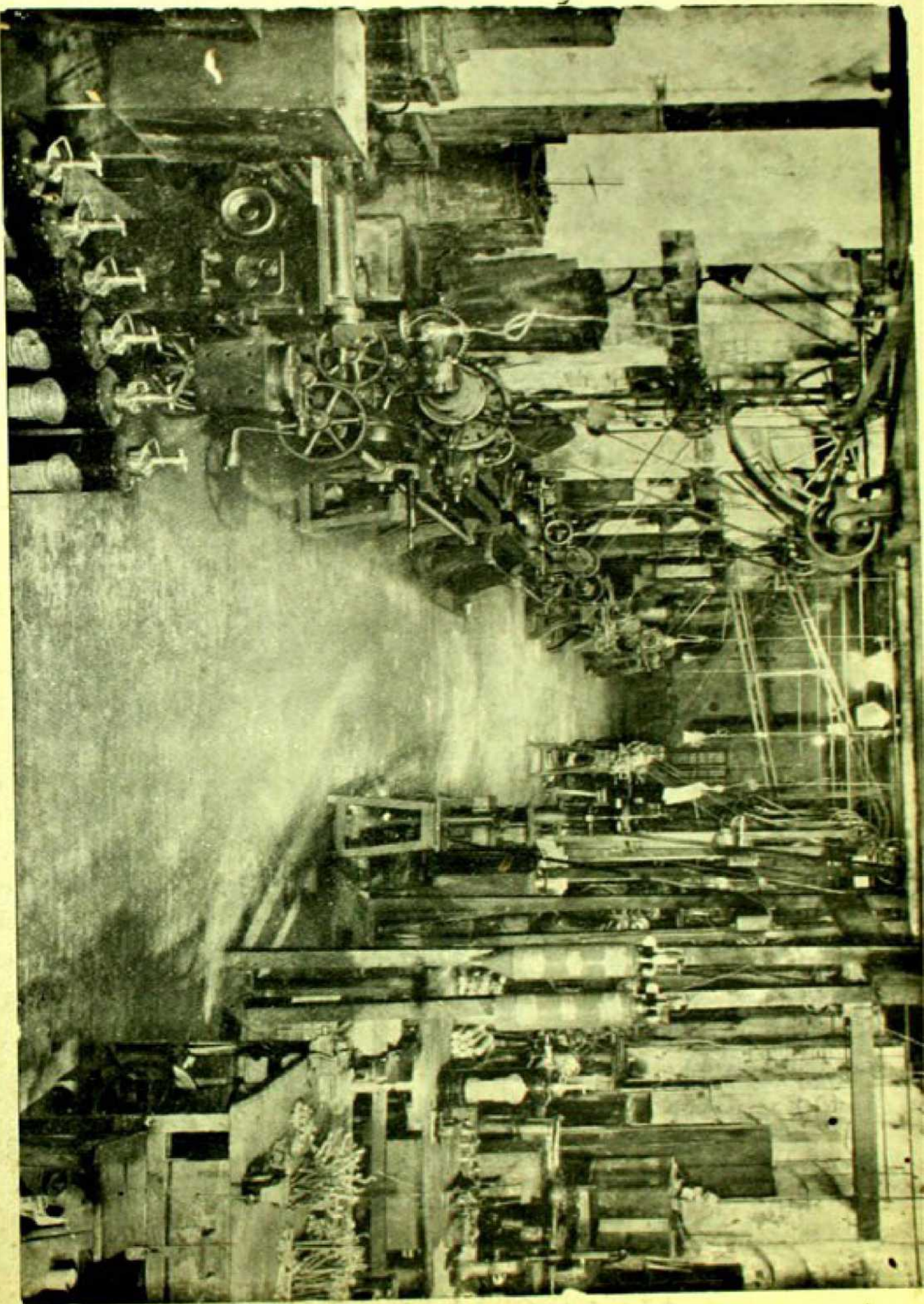
- ৭। খুলনা জেলা সম্মিলনীতে অধ্যর্থনা সমিতির সভাপতির অভিভাষণ। বেঙ্গল কেমিকেল প্রেস, কলিকাতা, ১৯২৫
- ৮। অক্সিজেনের আবিষ্কার। প্রকৃতি (৪র্থ বর্ষ), কলিকাতা, ১৩৩৪ বাং পৃ: ১০৪-১০৮
- ৯। ব্যবসা-বাণিজ্য ও বাঙ্গালীর অন্নসমস্যা। ফরিদপুর জেলা ব্যবসায়ী সমিতির বার্ষিক অধিবেশনে সভাপতির অভিভাষণ, ৭ই এপ্রিল, ১৯৩৫
- ১০। অন্নসমস্যা ও বাঙ্গালীর নিশ্চেষ্টতা। মাসিক বহুমতী (১ম বর্ষ), ফাল্গুন, পৃ: ৫৪২
- ১১। রসায়ন শাস্ত্র—নব্য ও প্রাচীন। মাসিক বহুমতী (২য় বর্ষ), অগ্রহায়ণ, পৃ: ১৩৭
- ১২। কোকনদা কংগ্রেস। মাসিক বহুমতী (২য় বর্ষ—২য় ভাগ), পৃ: ৪৩৮
- ১৩। বর্তমান সমস্যা। মাসিক বহুমতী (৩য় বর্ষ), আষাঢ়, পৃ: ৩২৫
- ১৪। স্বরেন্দ্রনাথের তিরোধান। মাসিক বহুমতী (৪র্থ বর্ষ), ভাদ্র, পৃ: ১
- ১৫। দেশবন্ধু চিত্তরঞ্জন। মাসিক বহুমতী, ১৩৩২ বাং, পৃ: ৩৮১
- ১৬। কলিকাতা ও সহরতলী। মাসিক বহুমতী, ১৩৩২ বাং, পৃ: ৩৬৭। ১৩৩৩ বাং, পৃ: ২৭
- ১৭। শ্রমের মর্যাদা—বাঙ্গালীর পরাজয়। মাসিক বহুমতী, ১৩৩২ বাং, পৃ: ৫৩২
- ১৮। চরকা ও বস্ত্রসমস্যায় বঙ্গমহিলার কর্তব্য। প্রবাসী, ১৩২৯ বাং, পৃ: ২৫৩
- ১৯। দেশের কর্তব্য সম্বন্ধে দুটো কথা। প্রবাসী, ১৩৩৩ বাং, পৃ: ১২৭
- ২০। বাঙ্গালী কোথায় গেল? প্রবাসী, ১৩৩২ বাং, পৃ: ৮৩৮
- ২১। কোকনদা খন্ডের প্রদর্শনী। প্রবাসী, ১৩৩৩ বাং, পৃ: ৭২৫
- ২২। অন্নসমস্যা ও গো-পালন। প্রবাসী, ১৩৪২ বাং, পৃ: ৬১০
- ২৩। ছুটির অবকাশে ছাত্রদের কর্তব্য। ভারতবর্ষ, ভাদ্র, ১৩৩৬ বাং, পৃ: ৪২৫
- ২৪। ভিগ্নির অভিশাপ। ভারতবর্ষ, অগ্রহায়ণ, ১৩৩৬ বাং, পৃ: ৮২৫
- ২৫। ভাইটামিন। ভারতবর্ষ, অগ্রহায়ণ ও পৌষ, ১৩৪১ বাং, পৃ: ৮২৩, ১
- ২৬। প্রবাসী জমিদার ও দুর্বহ পক্ষী (১ম ভাগ)। সহ-লেখক শ্রীহরগোপাল বিশ্বাস।
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- ২৭। বাঙ্গলার জমিদারবর্গ। ভারতবর্ষ, ১৩৪০ বাং, পৌষ হইতে, পৃ: ২০, ৪৩২, ৮৩৩
- ২৮। বস্ত্রসমস্যা। বঙ্গবাণী, শ্রাবণ, ১৩২৯ বাং, পৃ: ৬৭৪
- ২৯। বস্ত্রায় শিক্ষা। বঙ্গবাণী, চৈত্র, ১৩২৯ বাং, পৃ: ১২৭
- ৩০। প্রাচীন ভারতে রসায়ন-শাস্ত্রচর্চা। বঙ্গবাণী, অগ্রহায়ণ, ১৩৩০ বাং, পৃ: ৪২১
- ৩১। দিনাজপুর রাষ্ট্রীয় সমিতির অভিভাষণ। বঙ্গবাণী, শ্রাবণ, ১৩৩১ বাং, পৃ: ৬৬২
- ৩২। বর্তমান যুগসমস্যা ও ছাত্রগণের কর্তব্য। বঙ্গবাণী, কা্তিক, ১৩৩২ বাং, পৃ: ৩৫১
- ৩৩। স্মৃতিতর্পণ। বঙ্গবাণী, শ্রাবণ, ১৩৩২ বাং, পৃ: ৭০২
- ৩৪। বিবেকানন্দ ও বর্তমান বাংলা। সহ-লেখক—শ্রীকলিঙ্গ নাথ ঘোষ।
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- ৩৫। স্বদেশী। বাংলার বাণী (৩য় বর্ষ—২য় সংখ্যা), পৃ: ২
- ৩৬। কলিকাতা ঘাট বৎসর পূর্বে ও এখন। আনন্দবাজার পত্রিকা.....
- ৩৭। বাঙ্গালী কোথায়? আনন্দবাজার পত্রিকা (পূজা সংখ্যা), ১৯৩২, পৃ: ৬

ERRATA

PAGE

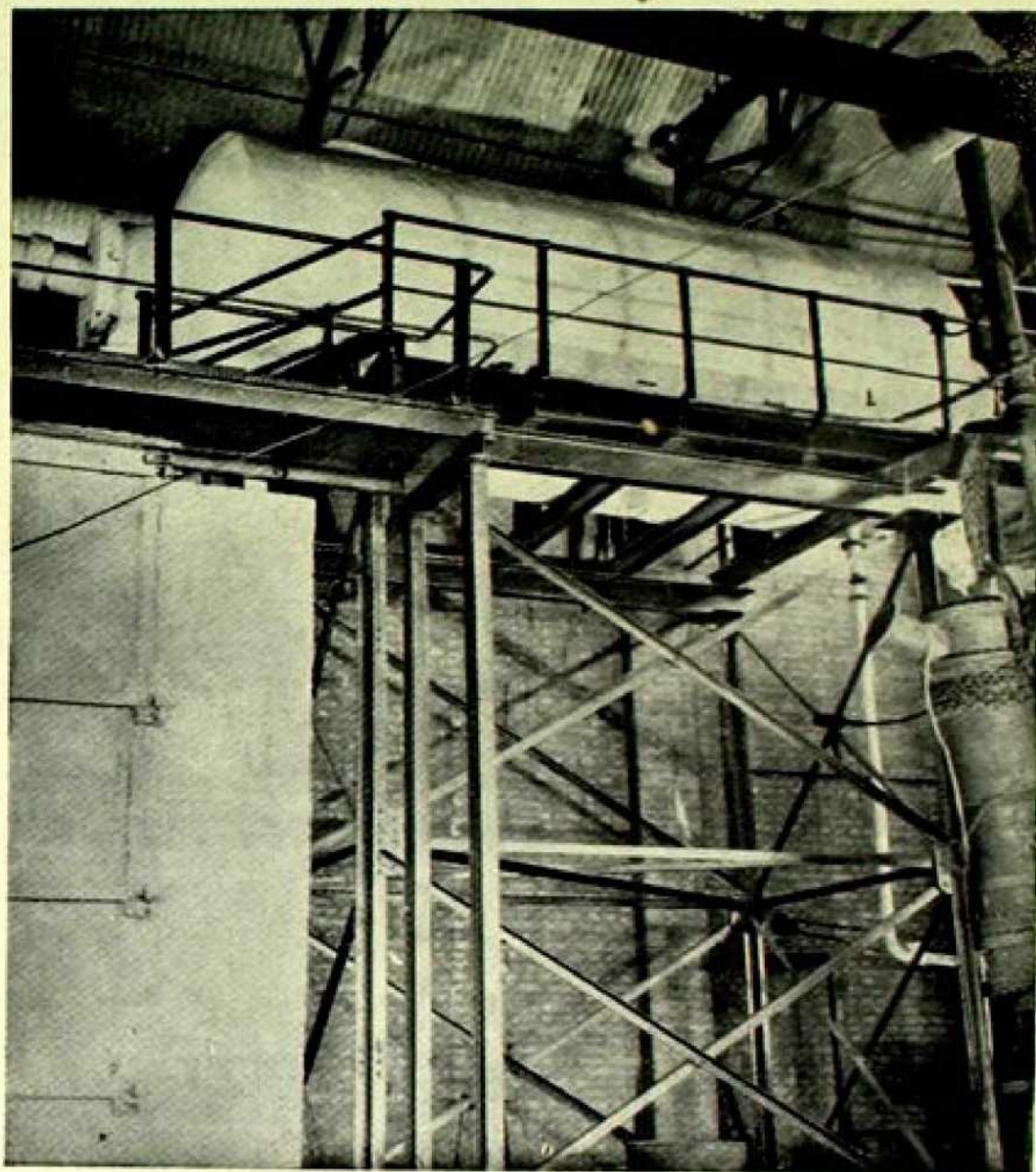
15. Line 4 from top. *For erelong read ere long.*
16. Line 10 from top. *For Mr. read Dr.*
27. *Read जयमन्विष्येत् for जयमन्विषेत् ।*
34. Line 4 from bottom. *Read age for way.*
40. Line 12 from top. *Put comma after education.*
64. Line 17 from top. *Read P. C. Datta for P. Datta.*
95. Line 6 from bottom. *Put inverted comma (") after country*
97. Line 5 from bottom. *Read support for suport.*
99. Line 11 from top. *Delete and.*
104. Line 14 from top. *Read quote for qote.*
105. First line. *Read wrapper for wrap.*
149. Line 13 from top. *Read him for his.*
162. Line 14 from bottom. *Read 1930 for 1938.*
216. Last line. *Read of for af.*
223. Line 17 from top. *Read the for he.*
224. Line 2 from bottom. *Read बहु for बड़ ।*
238. First line. *Read बाकार for काकर ।*
246. Line 3 from top. *Read रवीन्द्रनाथ for वरीन्द्रनाथ ।*
251. Line 3 from top. *Read सक्कट-त्राण for सक्कट-त्रान ।*
259. Line 12 from bottom. *Read ऊँटि for ऊँटी ।*
265. Line 18 from bottom. *Read योबना for योबना ।*
267. Line 10 from bottom. *Read आछाई- for आछाई- ।*
268. Last line. *Read बिपदेई for बिपदेई ।*
273. Line 15 from top. *Read झूलबोकाबुकि for झोलबोकाबुकि ।*
275. Line 16 from top. *Read छात्रबद्ध for छात्ररद्ध ।*
279. Line 8 from bottom. *Read साईहाटी for साईहटी ।*
301. Line 3 from bottom. *Read साध्यानुसारे for साध्यानुसारे ।*

ILLUSTRATIONS



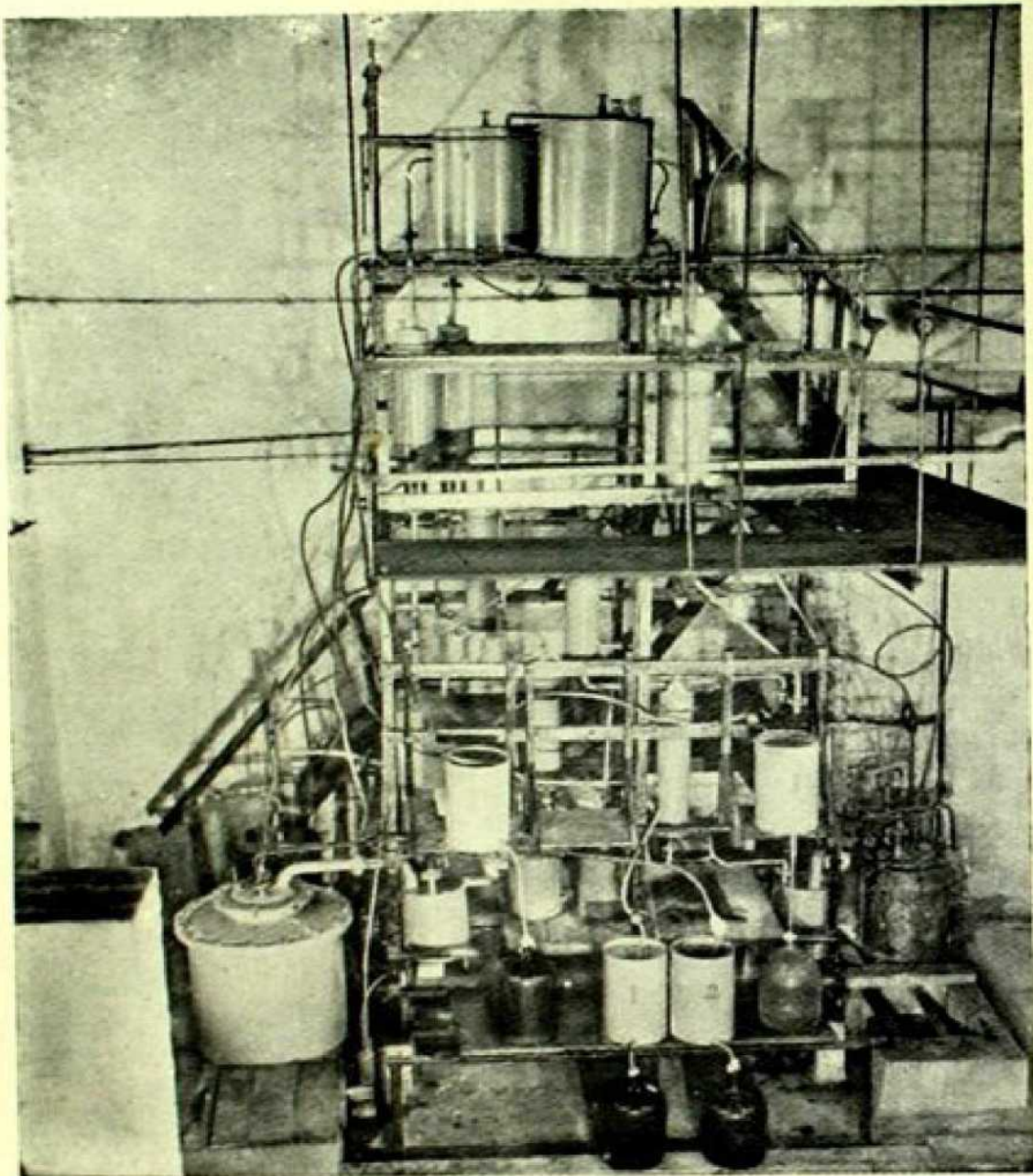
XLIX. THE BENGAL CHEMICAL AND PHARMACEUTICAL WORKS LTD.
(Machine Shop Section at Panihati—1951)

(By courtesy of the Manager, B.C.P.W.).



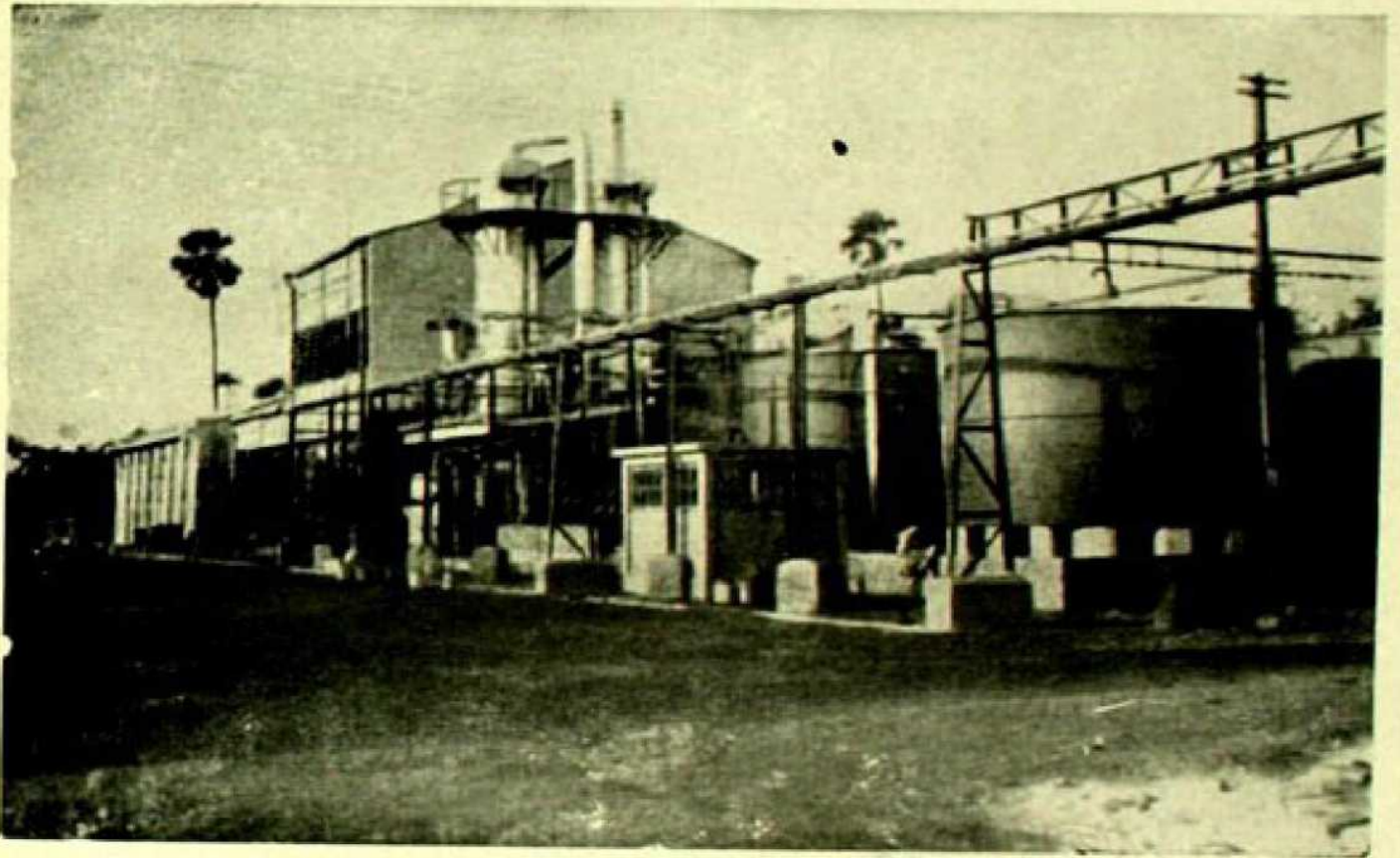
XLVIII. THE BENGAL CHEMICAL AND PHARMACEUTICAL WORKS LTD.
(Tar Distillation Plant at Panihati — 1951)

(By courtesy of the Manager, B.C.P.W.)



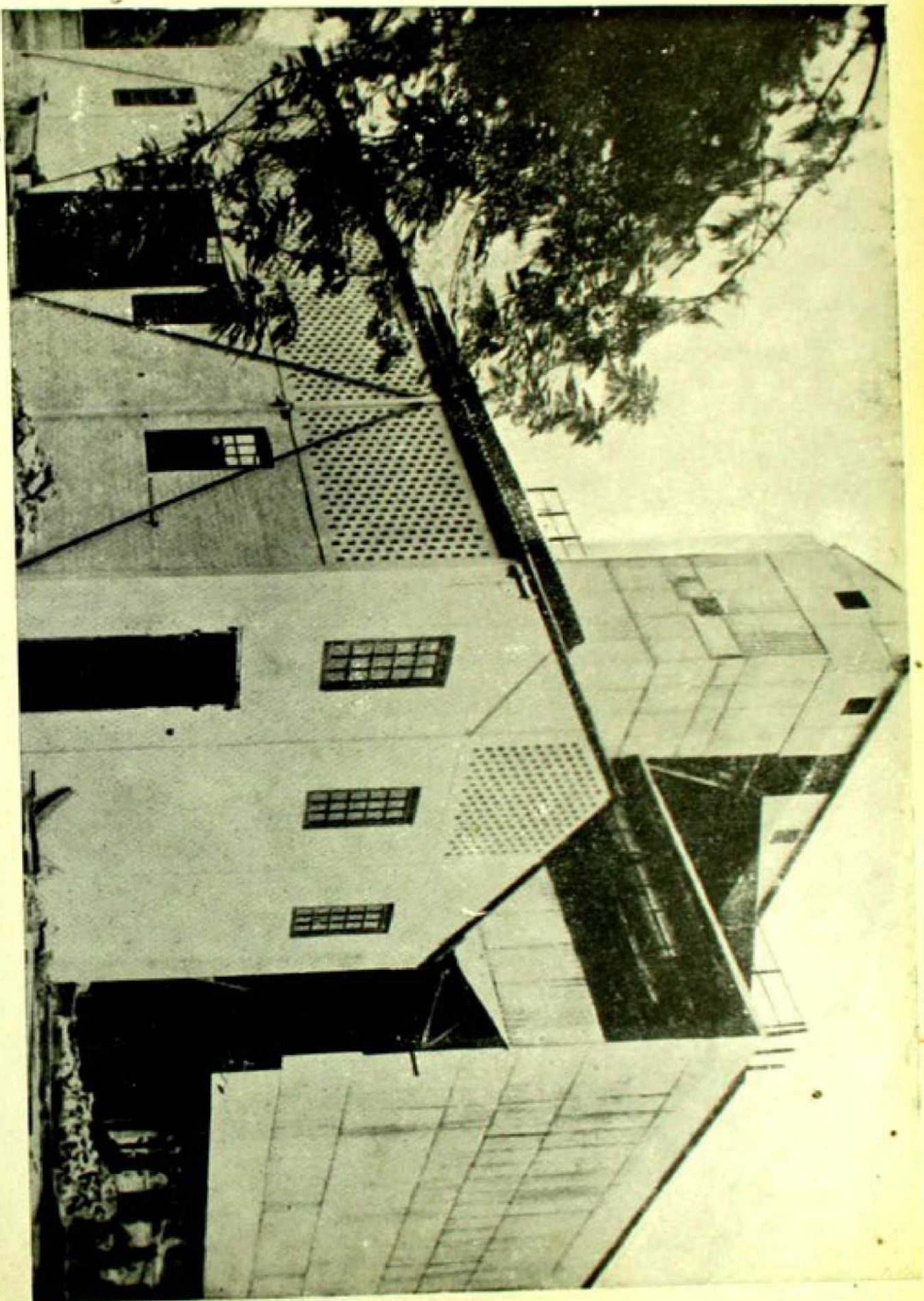
XLVII. THE BENGAL CHEMICAL AND PHARMACEUTICAL WORKS LTD.
(Ether Plant at Panihati—1951)

(By courtesy of the Manager, B.C.P.W.)

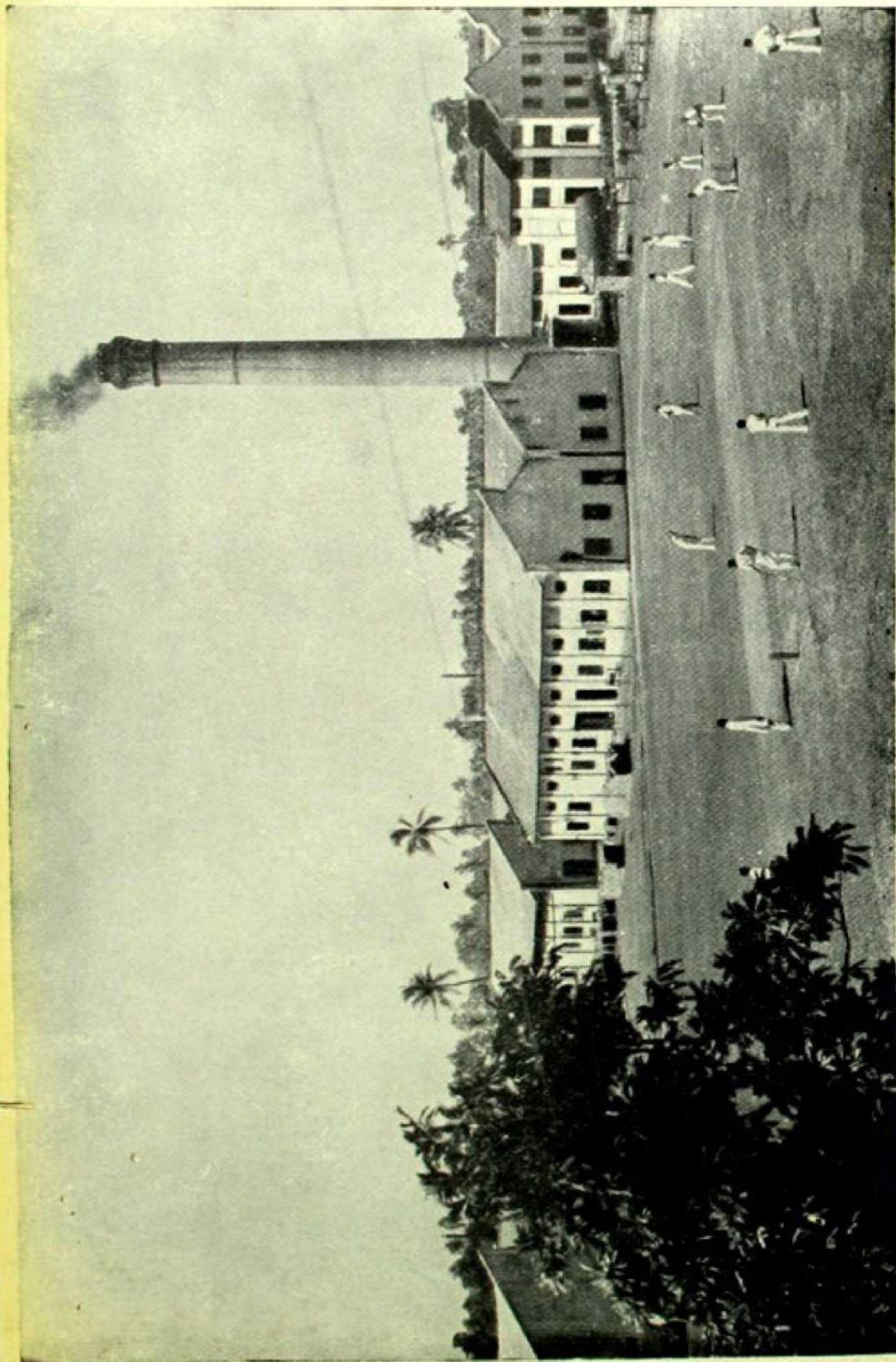


XLVI. THE BENGAL CHEMICAL AND PHARMACEUTICAL WORKS LTD.
(Contact Plant for Sulphuric Acid, Panihati — 1951)

(By courtesy of the Manager, B.C.P.W.)

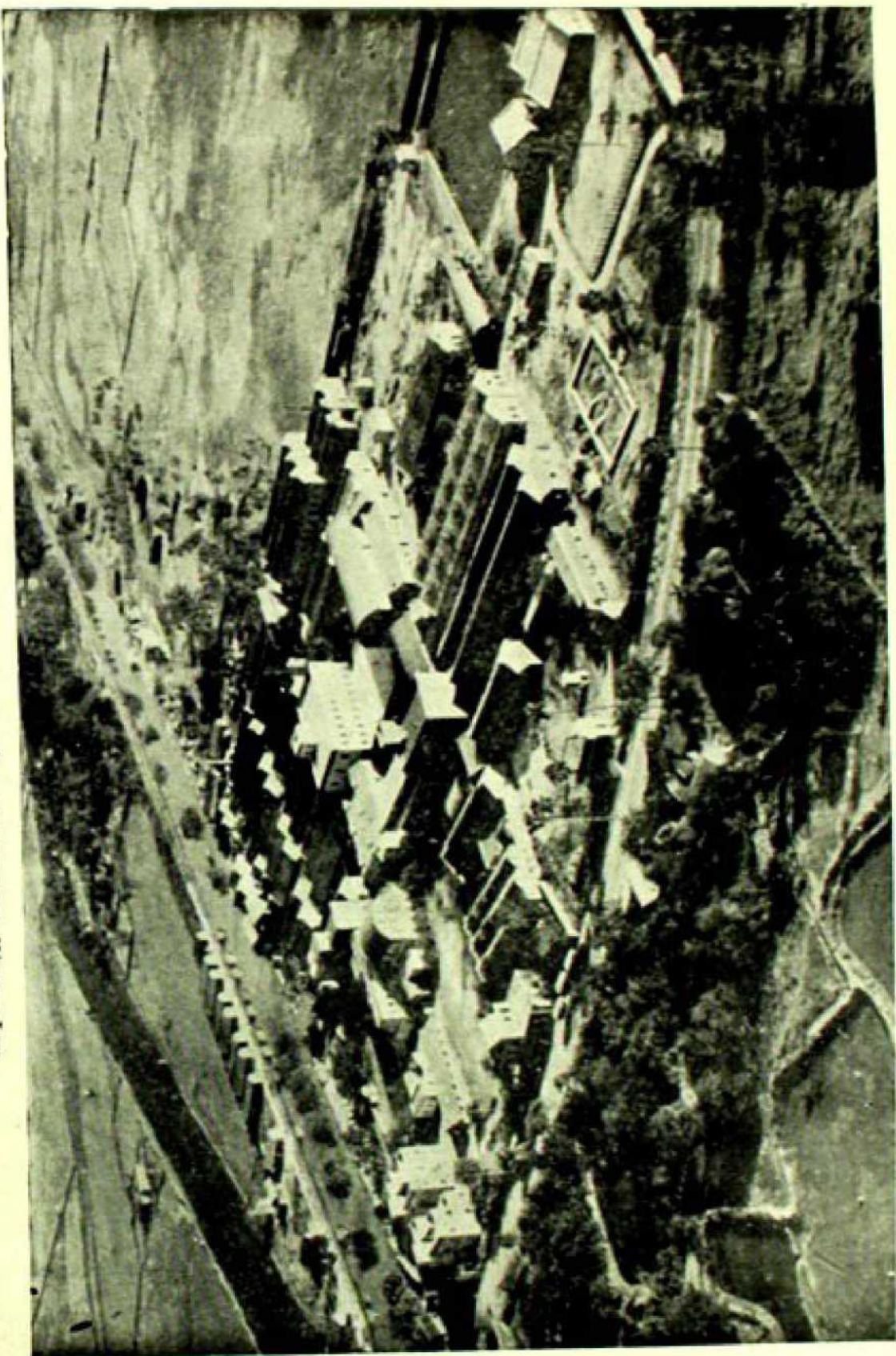


XLV. THE BENGAL CHEMICAL AND PHARMACEUTICAL WORKS LTD.
(Chamber Plant for Sulphuric Acid, Panhati — 1951)
(By courtesy of the Manager, B.C.P.W.)



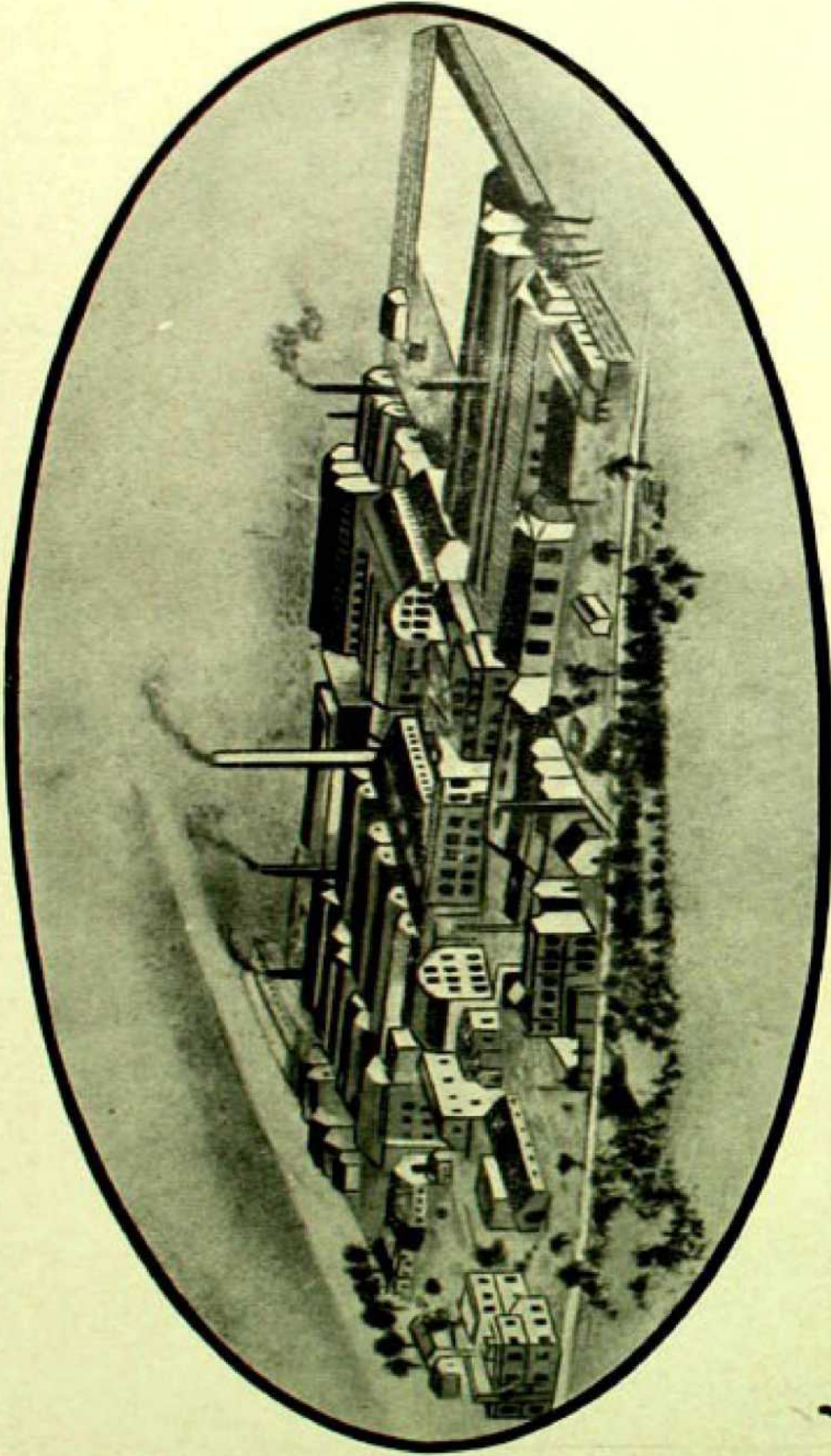
XLIV. THE BENGAL CHEMICAL AND PHARMACEUTICAL WORKS LTD.
(General View of Panihati Factory — 1951)

(By courtesy of the Manager, B.C.P.W.)

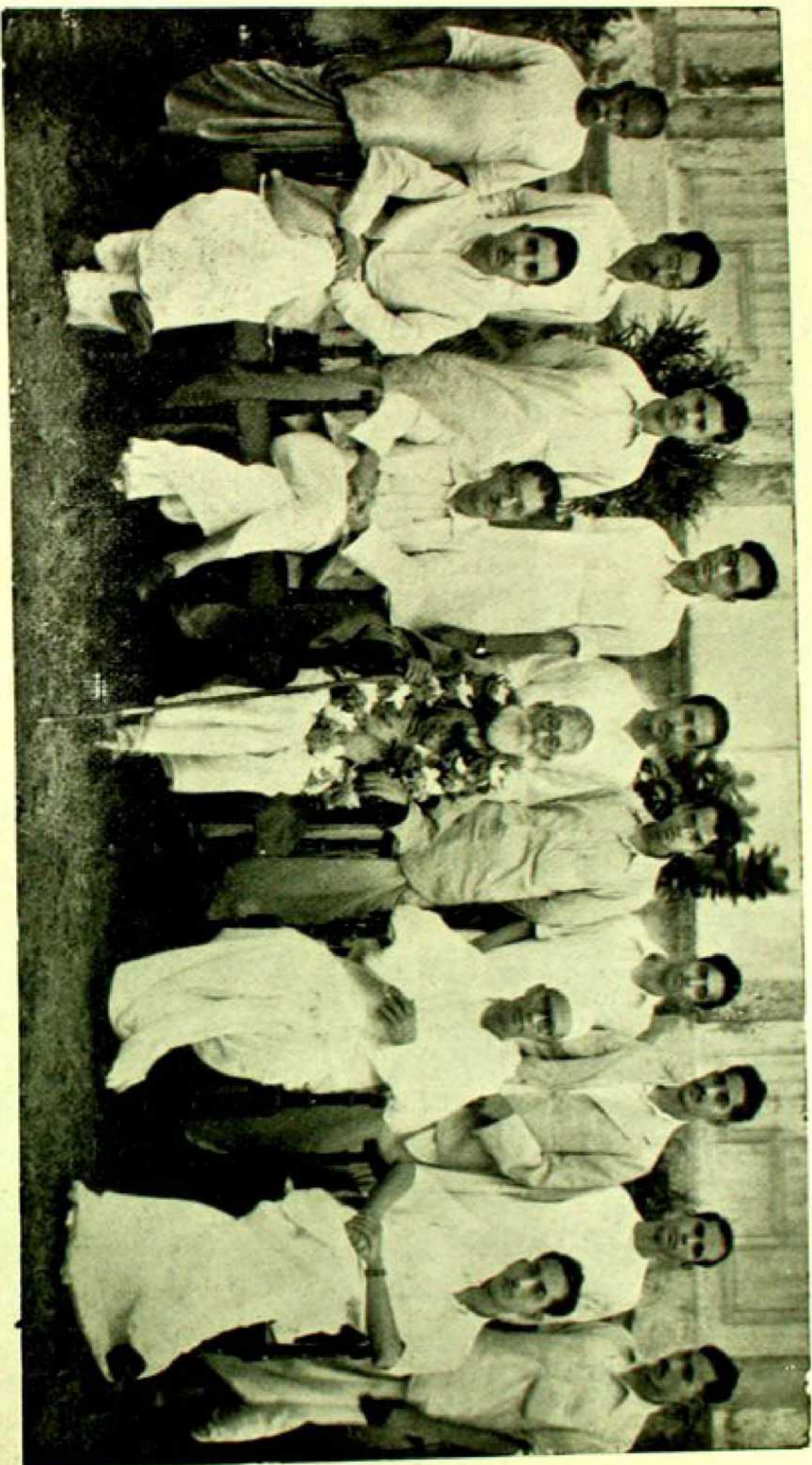


XLIII. THE BENGAL CHEMICAL AND PHARMACEUTICAL WORKS LTD.
(Manicktala Factory — Aerial View, 1950)

(By courtesy of the Manager, B.C.P.W.)



XLII. THE BENGAL CHEMICAL AND PHARMACEUTICAL WORKS LTD.
(Manicktala Factory — Aerial View, 1931)



XII. ACHARYA RAY AT THE UNIVERSITY COLLEGE OF SCIENCE WITH THE STAFF AND SCHOLARS OF THE DEPARTMENT OF INORGANIC CHEMISTRY (1942)

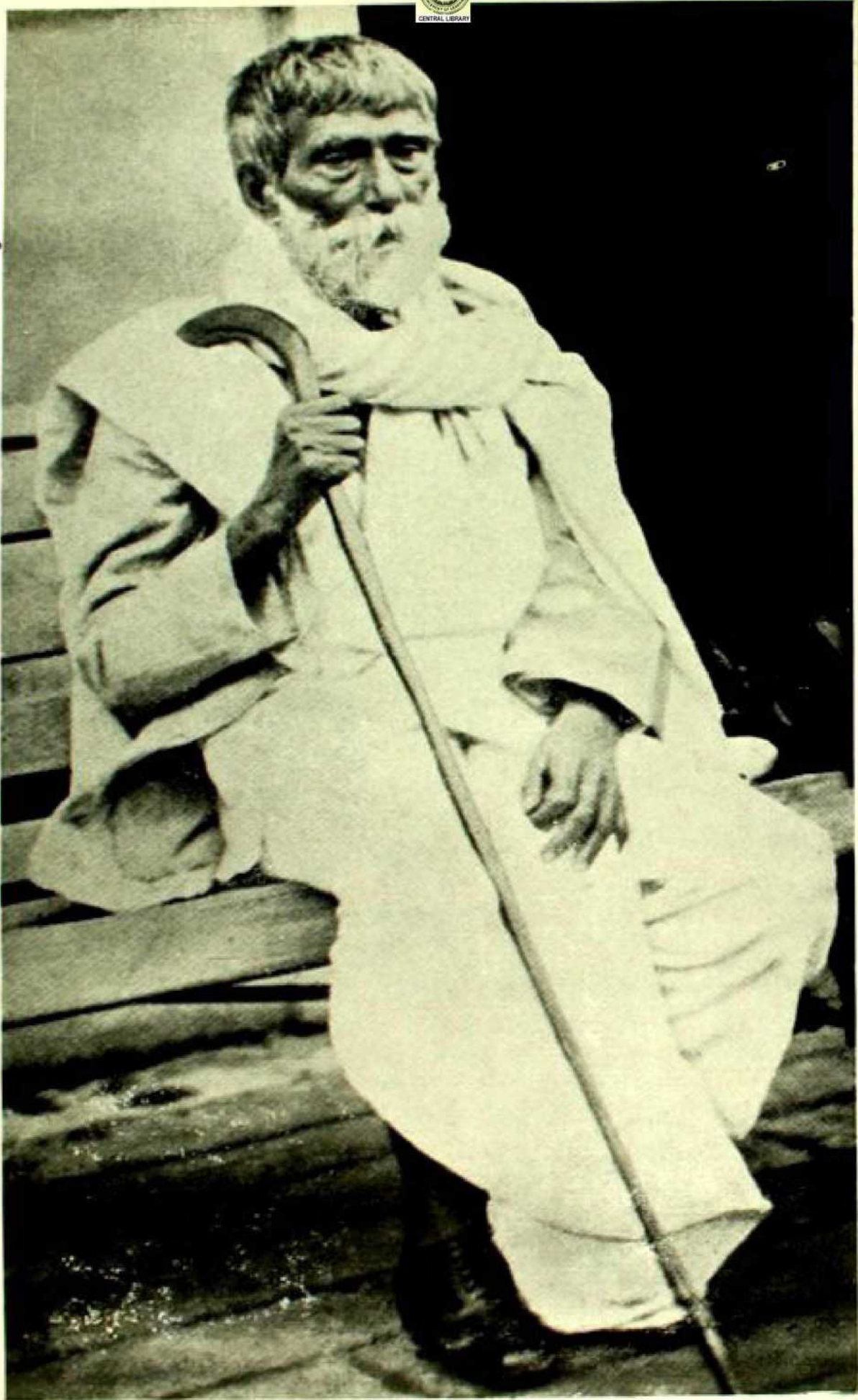
Sitting (L.-R.)—Dr. J. Gupta, Prof. P. Ray, Acharya Ray, Dr. P. B. Sarkar, Mr. A. K. Majumdar.

Standing (L.-R.)—Rampit, Mr. N. K. Dutt, Mr. A. S. Bhaduri, Mr. S. P. Ghosh, Mr. N. Sen, Mr. A. Majumdar, Mr. B. Chakrabarty, Mr. K. R. Chakravarty, Mr. B. C. Purkayastha, Brajen.



XL. ACHARYA RAY AT THE ARYASTHAN INSURANCE COMPANY IN AUGUST 1942 ON THE OCCASION OF HIS 82ND BIRTH-ANNIVERSARY.
 Sitting around him (L.-R.)—Khan Bahadur A. Momin, Dr. S. C. Ghosh, Mr. S. C. Roy, Miss Jyotirmoyee Ganguli, Raja Bahadur of Nashipur, Dr. J. N. Sadhu, Mr. J. B. Sen, Mrs. Hamida Momin.

(From the Calcutta Municipal Gazette)



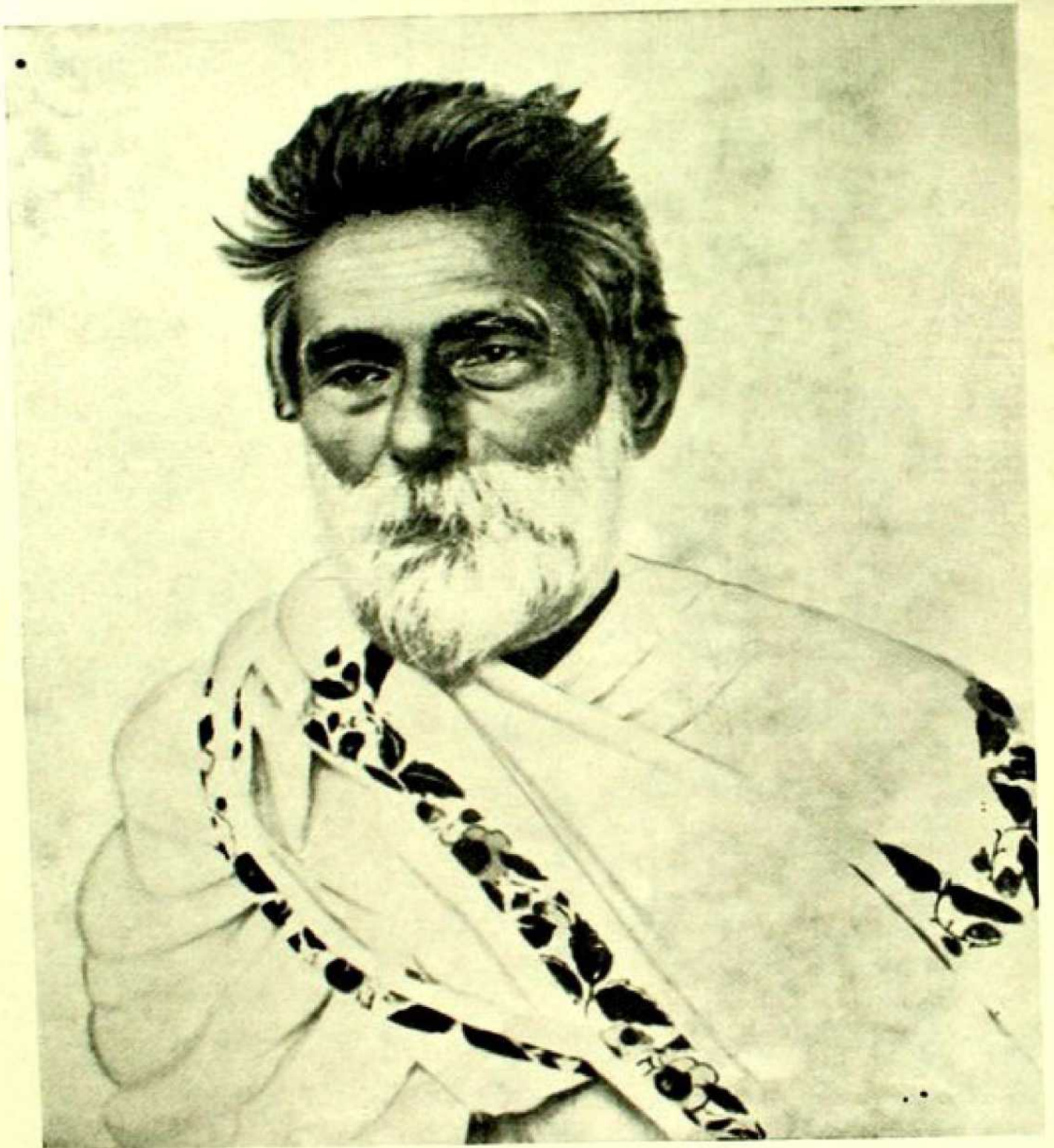
XXXIX. ACHARYA RAY READY FOR EVENING CONSTITUTIONAL (1941).
(From the Calcutta Municipal Gazette)



XXXVIII. ACHARYA RAY IN 1941.

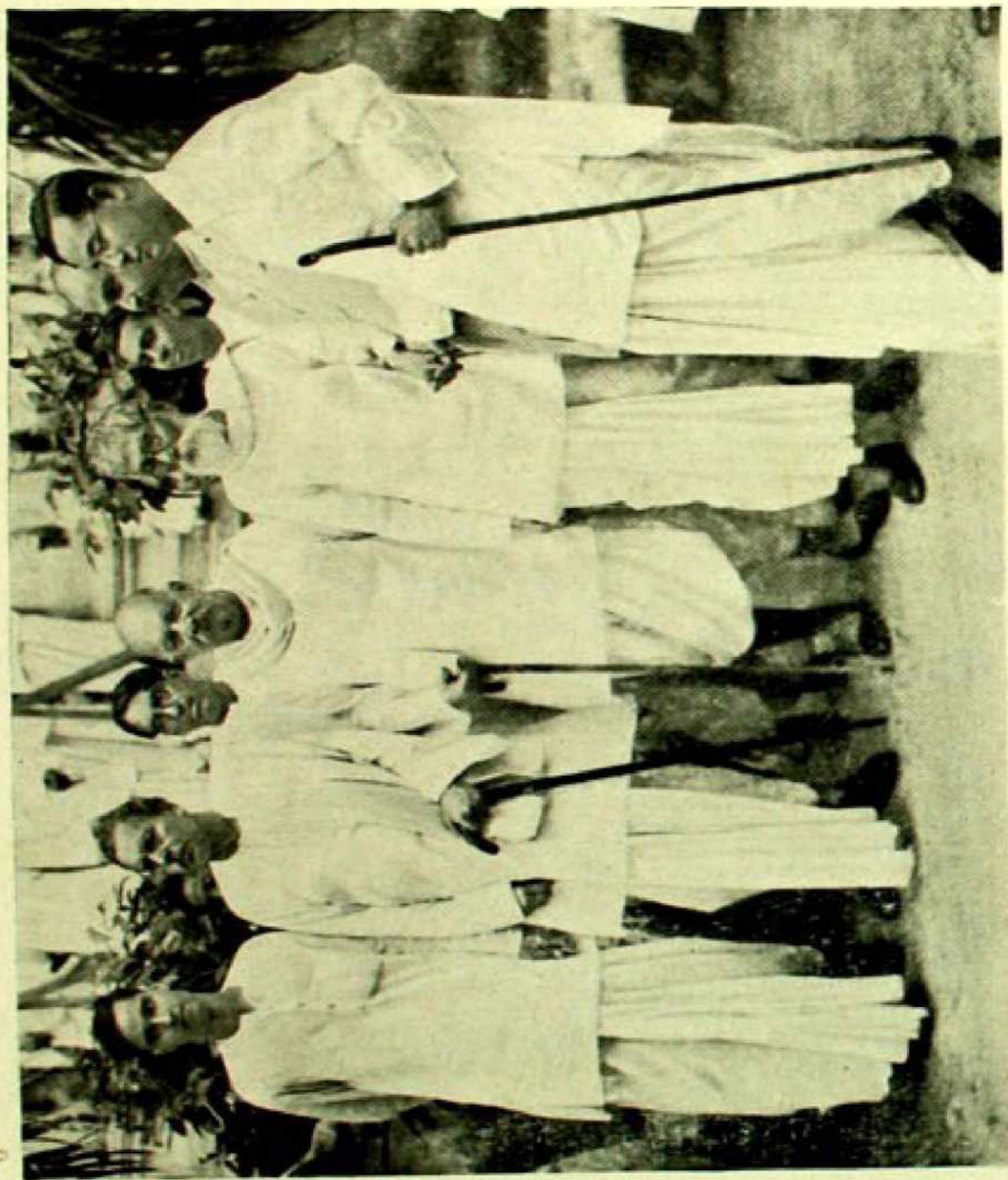


XXXVII. ACHARYA RAY ENGAGED IN STUDY IN HIS LIVING ROOM AT THE UNIVERSITY COLLEGE OF SCIENCE (1941).



XXXVI. ACHARYA RAY IN 1940.

(Photo — 'Statesman')



XXXV. ACHARYA RAY WITH JUSTICE MANMATHA NATH MUKHERJEE AT A FUNCTION IN 1940.
 (L.-R.)—Bhabes Chandra Ray, Dr. Pramatha Nath Banerjee, Justice Manmatha Nath Mukherjee,
 Acharya Ray, Dr. Syamaprasad Mookerjee, Arabinda Sardar.

(By courtesy of Shri Kanchan Mukherjee)



XXXIV. ACHARYA RAY IN 1938 AT THE SCIENCE COLLEGE AFTER AN OPERATION ON HIS LEFT EYE.

From row—Dr. P. N. Banerjee (Minto Professor), Acharya Ray, Dr. Azizul Haque (the Vice-Chancellor), Dr. Syamaprasad Mookerjee.
(By courtesy of Shri Bhades Chandra Ray)



XXXIII. ACHARYA RAY WITH DELEGATES OF THE INDIAN SCIENCE CONGRESS.
(On the occasion of its Silver Jubilee Session in 1938)

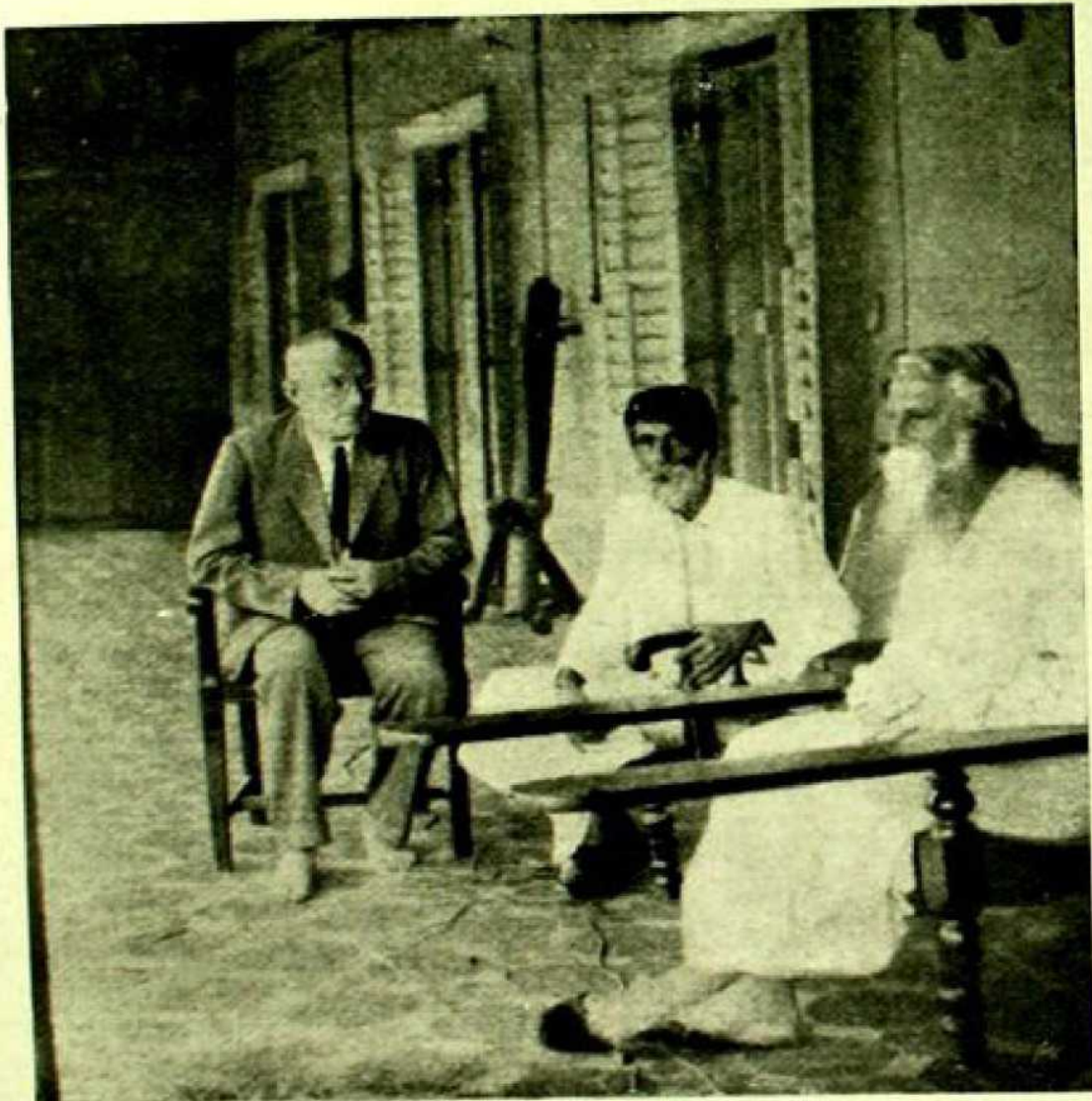
L. to R.

Seated on the ground—Mr. W. D. West (General Secretary), Prof. S. K. Mitra (Local Secretary), Prof. J. N. Mukherjee (General Secretary), Mr. B. M. Sen (Local Secretary).

Seated on chair—Dr. F. W. Aston, Prof. A. H. R. Buller, Mrs. Simonsen, Acharya Ray, Prof. J. L. Simonsen, Miss E. Bishop, Prof. E. Von Eickstedt, Mr. Syamaprasad Mookerjee (Chairman, Reception Committee), Sir James H. Jeans (General President), Prof. Winifred Cullis, Sir J. B. Henderson, Prof. W. Straub, Sir U. N. Brahmachari.

Standing (1st row)—Sir A. Hill, Prof. F. K. Morris, Prof. R. Ruggles Gates, Mr. R. H. Kinvig, Mrs. Tattersall, Prof. Ernest Barker, Prof. W. T. Gordon, Dr. Baini Prasad, Lt. Col. R. B. Seymour Sewell, Dr. C. W. B. Normand, Prof. S. P. Agharkar, Prof. M. N. Saha, Prof. J. C. Ghosh.

Standing (2nd row)—Dr. B. S. Guha, Dr. E. Macfarlane, Dr. L. Dudleystamp, Mrs. Morris, Mr. D. P. Ghosh, _____, Mr. J. Bose, Dr. A. L. Narayan, Rao Ramaswami Iyenger Bahadur, Dr. B. B. Sarkar, Mr. D. D. Mukherjee, Capt. S. Dutta, Mr. N. N. Chatterjee, _____



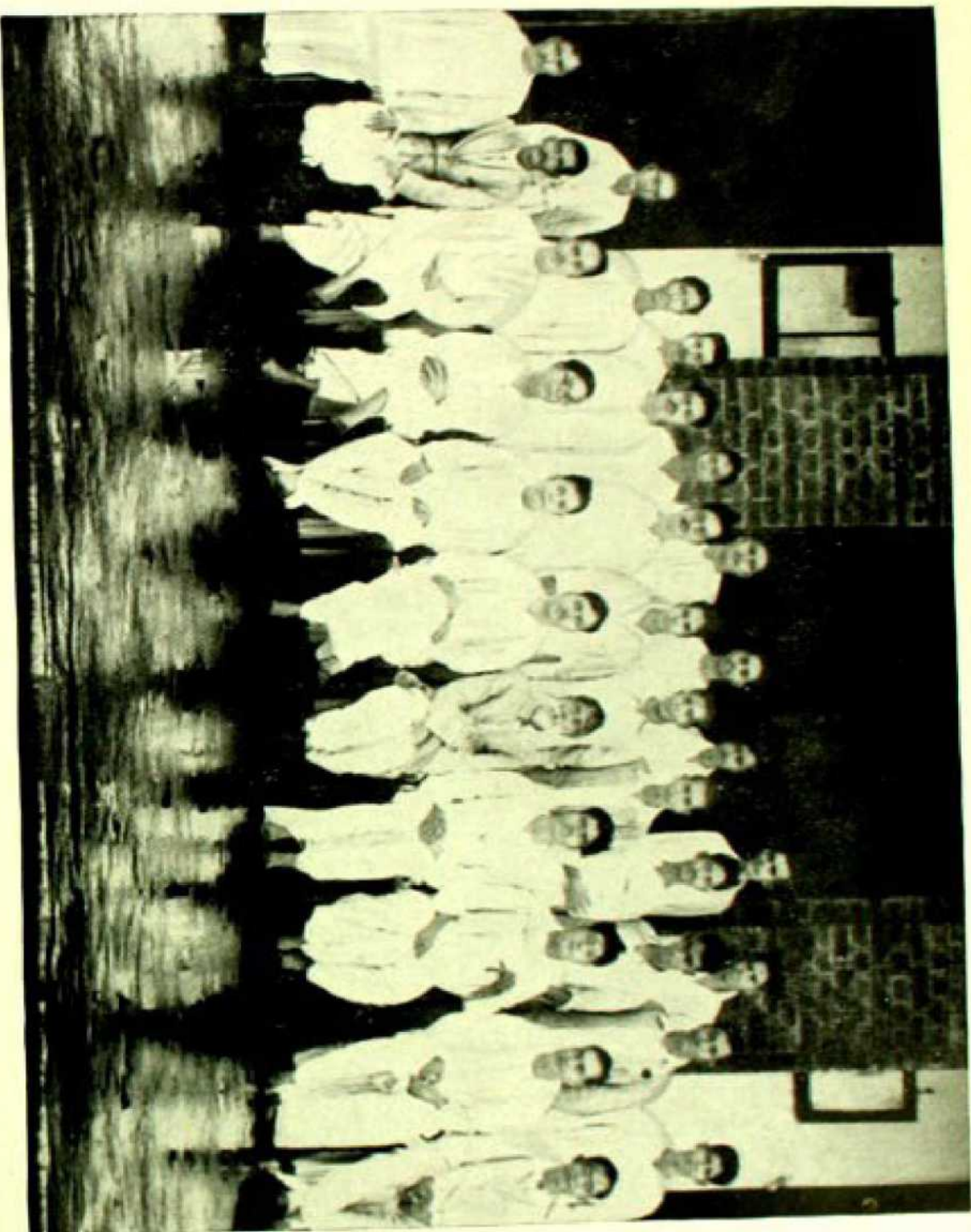
XXXII. ACHARYA RAY WITH RABINDRANATH TAGORE IN 1937.

(By courtesy of 'The Times of India', Bombay)



XXXI. ACHARYA RAY AT THE SADHANA OUSADHALAYA IN DACCA (1936) WITH THE PROPRIETOR SHRI J. C. GHOSE ON HIS RIGHT AND DR. J. C. GHOSH ON HIS LEFT.

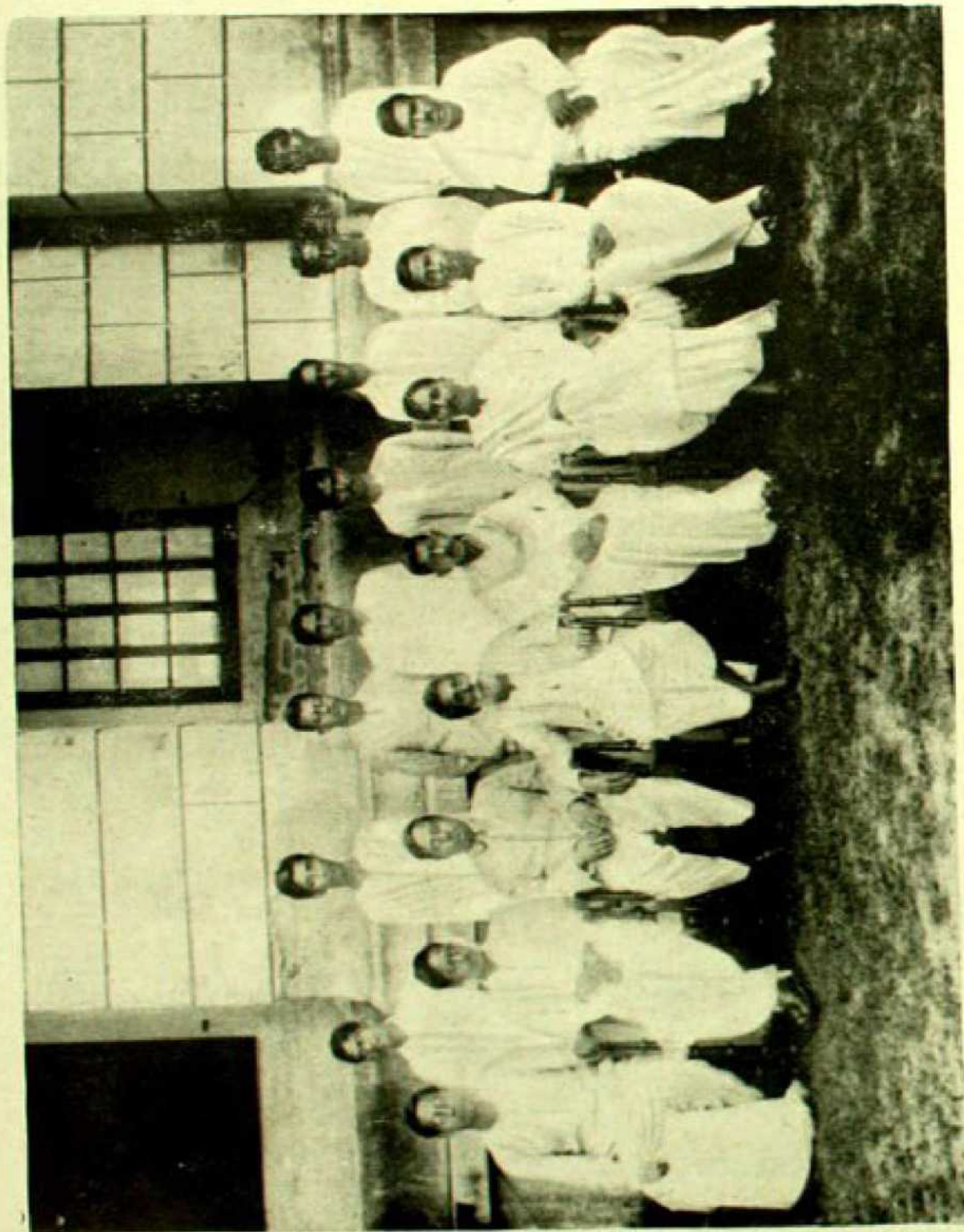
(By courtesy of Shri Jogesh Chandra Ghose)



XXX. ACHARYA RAY AT Dacca in 1936.

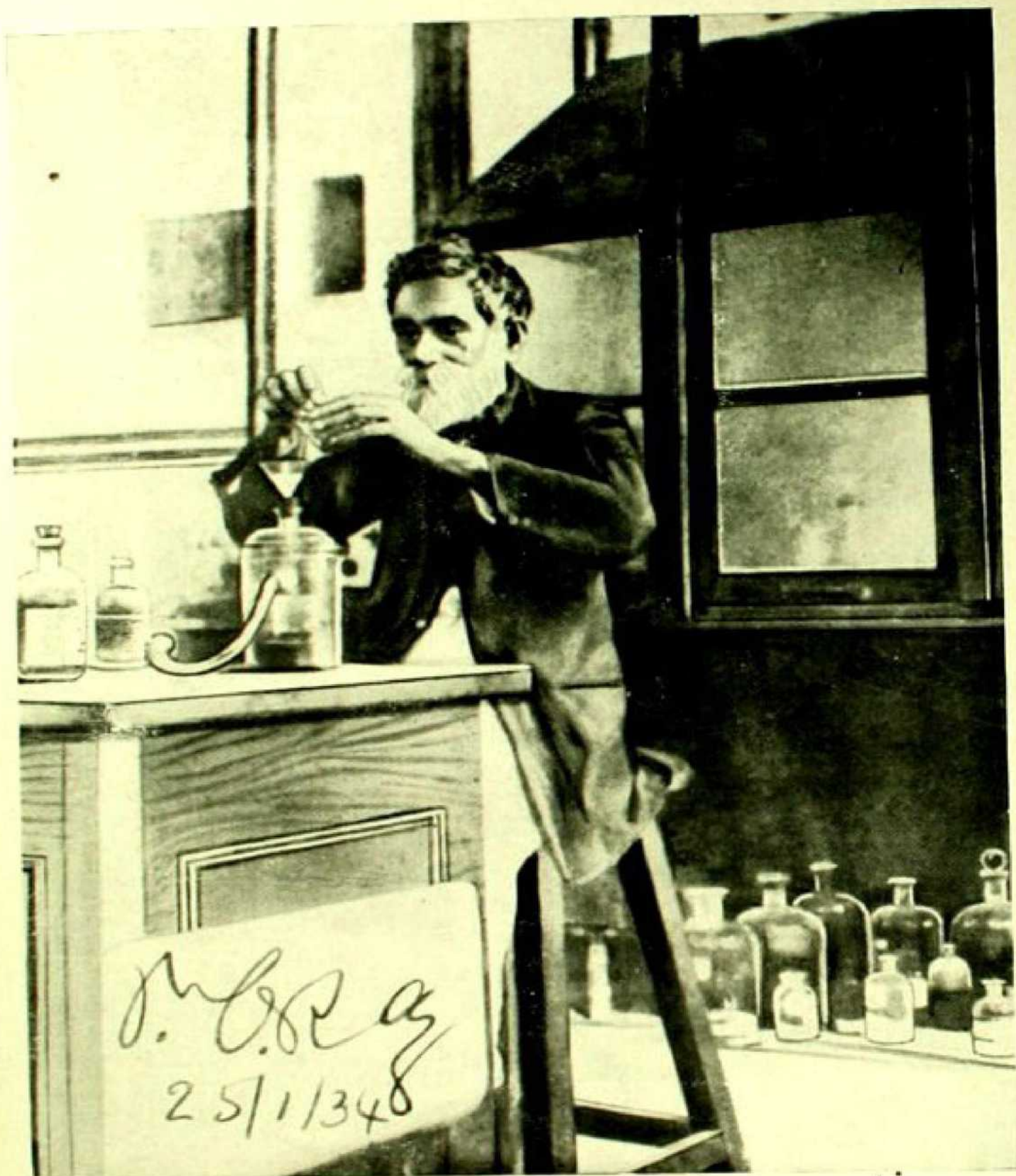
Sitting (L.-R.)—Dr. P. K. De, Shri S. K. Basak, Dr. S. S. Guha Sarcar, Dr. K. P. Basu, Dr. J. K. Chowdhuri,
 Dr. J. C. Ghosh, Acharya Ray, Dr. P. B. Sarkar, Prof. S. N. Bose, Dr. K. Banerjee, Dr. S. R. Khastagir.
Standing (First row)—Dr. J. Bakshi, Dr. M. C. Nath, Shri T. P. Bardhan, Dr. S. B. Sen Gupta, Shri M. L.
 Narasimha Murli, Dr. S. K. Bhattacharya, Dr. T. L. Ramachari, Dr. K. R. Kar, Shri L. M. Roy,
 Shri C. R. Bose, Shri N. M. Bose.
Standing (Second row)—Dr. S. N. Sarkar, Dr. P. C. Rakhi, Shri B. M. Kar, Shri Sukumar Sen,
 Shri B. Chakraborty, Shri K. Dasgupta, Shri N. Datta.

(By the courtesy of Sm. Nilima Ghosh)



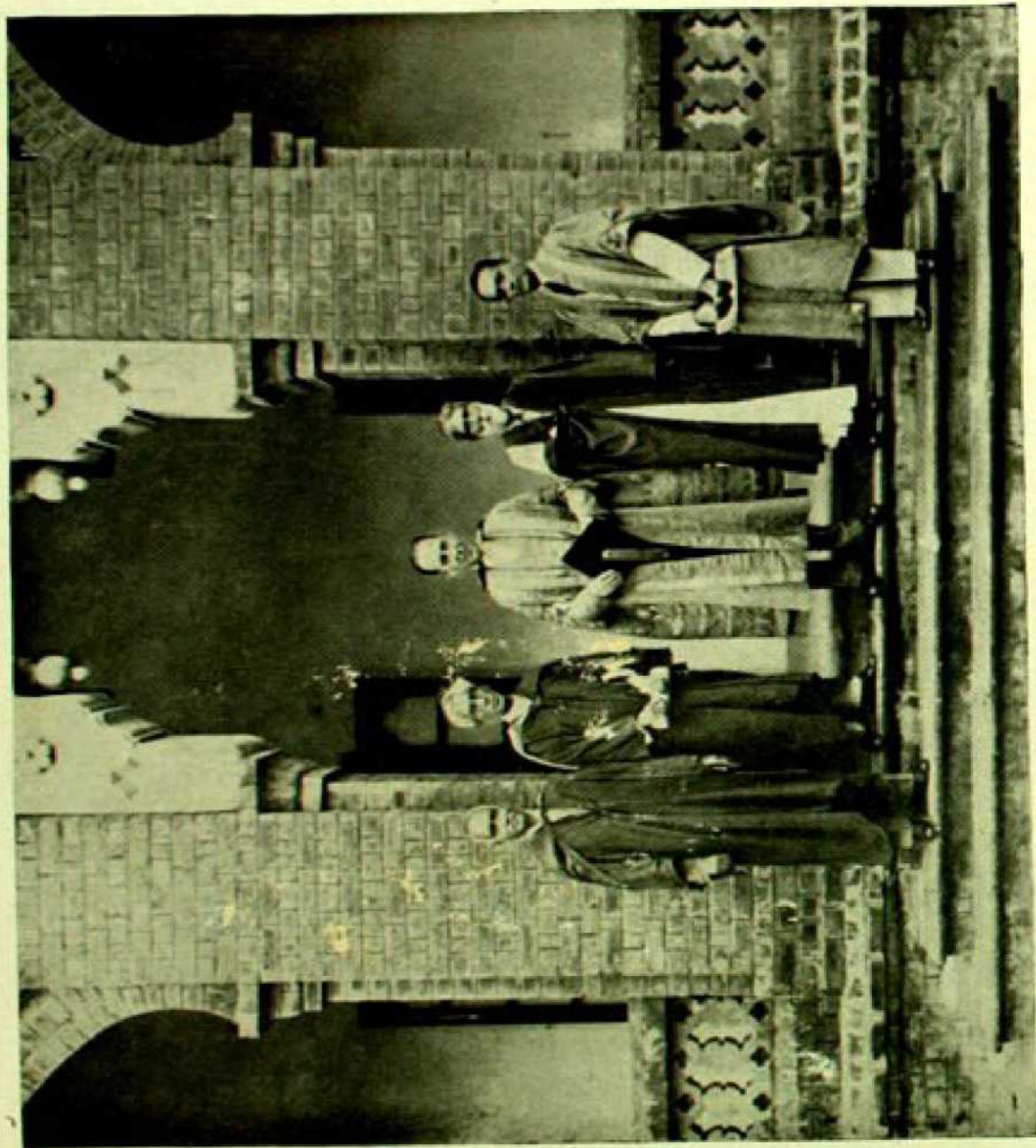
XXIX. ACHARYA RAY WITH THE STAFF AND STUDENTS OF THE PHYSICAL CHEMISTRY DEPARTMENT,
UNIVERSITY COLLEGE OF SCIENCE IN 1934.

Sitting (L.-R.)—N. P. Chattopadhyaya, S. P. Raichaudhuri, K. K. Kumar, Acharya Ray, Dr. J. N. Mukherjee,
Dr. J. C. Ghosh, S. G. Chaudhuri, P. N. Kundu.
Standing (L.-R.)—M. M. Biswas, S. S. Das Gupta, M. Majumdar, S. Ganguli, Ashu Chatterjee, Bhades Chandra
Ray, R. P. Mitra, Ardhendu Bhattacharjee.



XXVIII. ACHARYA RAY.
(Laboratory, Bengal Chemical and Pharmaceutical Works Ltd., Manicktala, Calcutta — 1934)

(By courtesy of the Manager, B.C.P.W.)



XXVII. ACHARYA RAY AT THE DACCA UNIVERSITY CONVOCATION.
(After receiving the Honorary Degree of Doctor of Science—1934)

Standing (L.-R.)—Sir Jadunath Sarkar, Dr. Sarat Chandra Chatterjee (Novelist), Sir John Anderson (the Chancellor), Acharya Ray, Dr. A. F. Rahaman (the Vice-Chancellor).

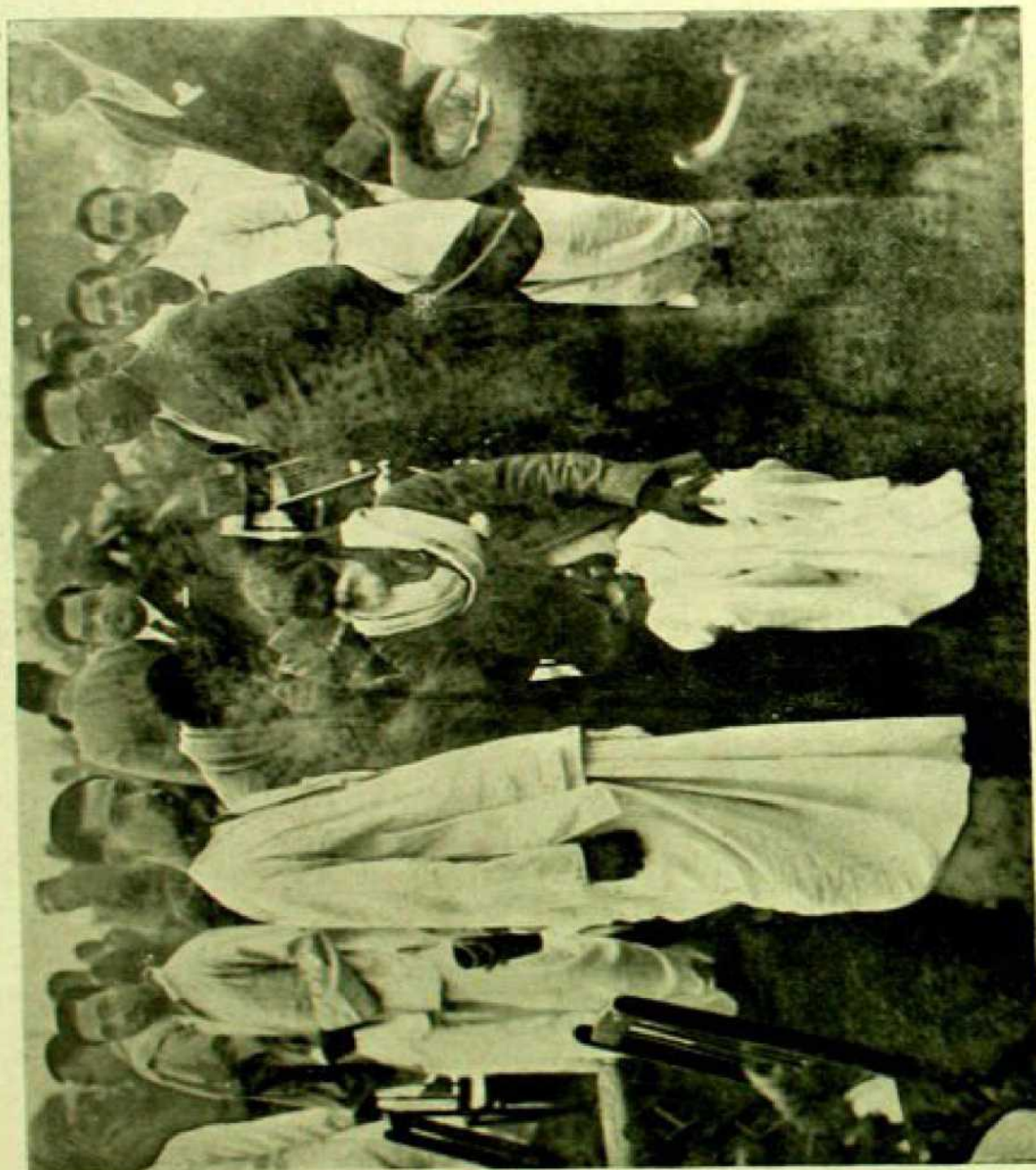
(By courtesy of Sm. Nilima Ghosh)



XXVI. ACHARYA RAY.

(Civic reception at the Town Hall, Calcutta, on the occasion of his 70th birthday—1932).
Standing (L.-R.)—B. C. Roy (the Mayor), B. Ganguli, Santosh Kumar Basu, Acharya Ray, Ramtaran Banerjee, Sachindra Nath Mukherjee, J. N. Maitra, Durga Prasad Khaitan.

(From the Calcutta Municipal Gazette)

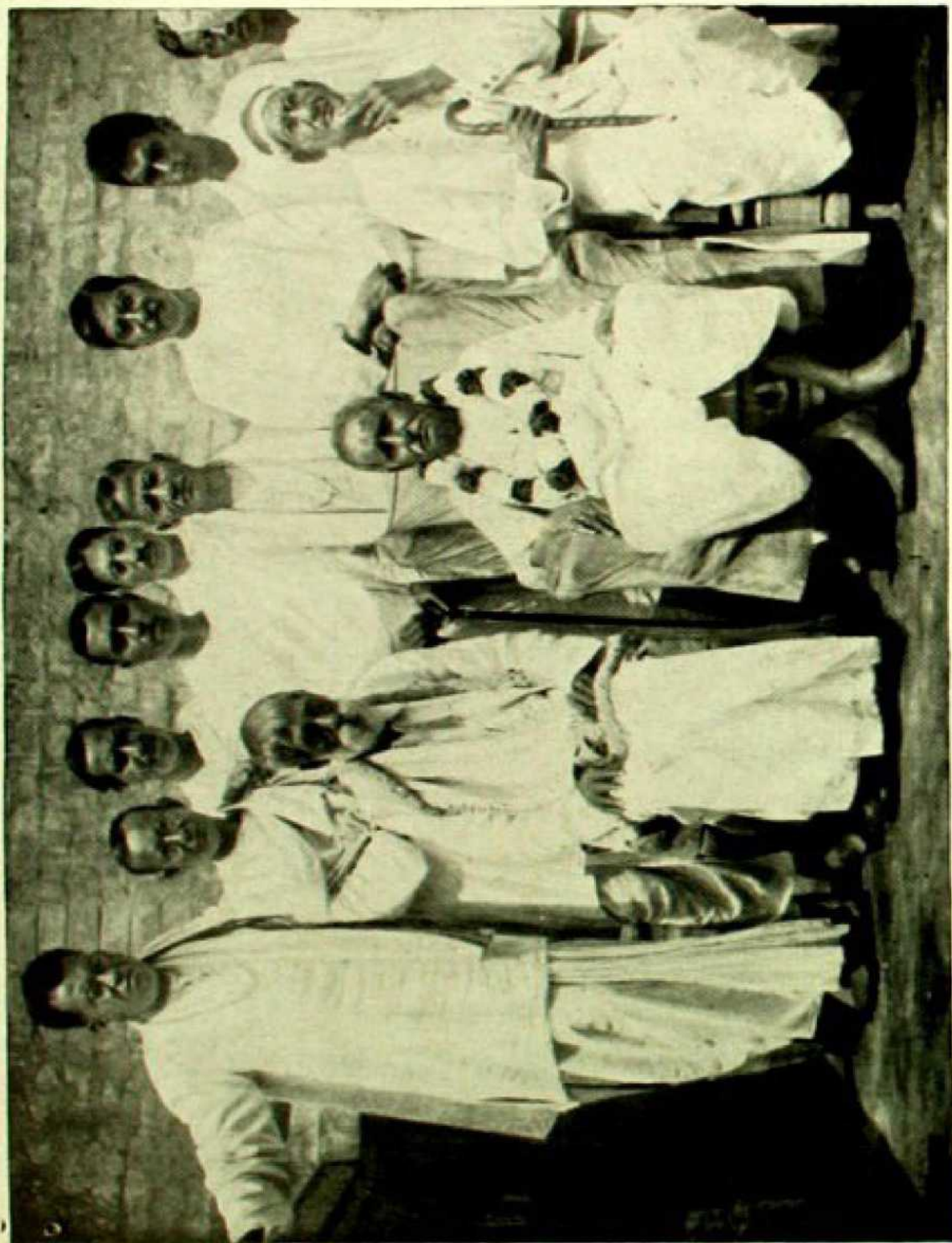


XXV. ACHARYA RAY AT THE BENGAL CHEMICAL AND PHARMACEUTICAL WORKS LTD.
(With some distinguished visitors—1932)
(By courtesy of Shri Kanchan Mukherjee)



XXIV. ACHARYA RAY AT THE BENGAL CHEMICAL AND PHARMACEUTICAL WORKS LTD. — 1932.

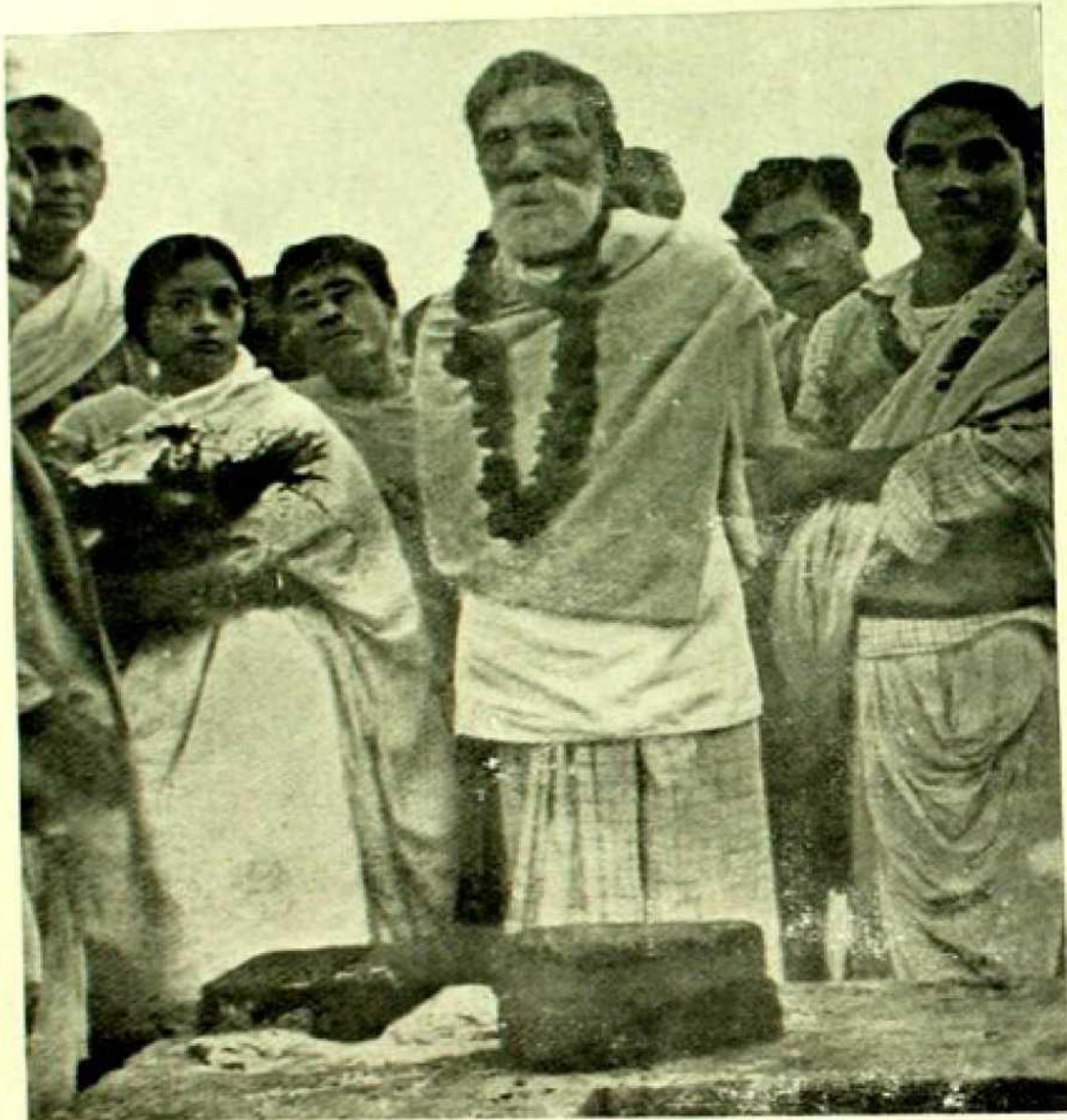
(By courtesy of Shri Kamchan Mukherjee)



XXIII. ACHARYA RAY AT THE RESIDENCE OF MAHAMAHOPADHYAYA HARAPRASAD SHASTRI.
 (On the occasion of the latter's 80th birthday, 1932)

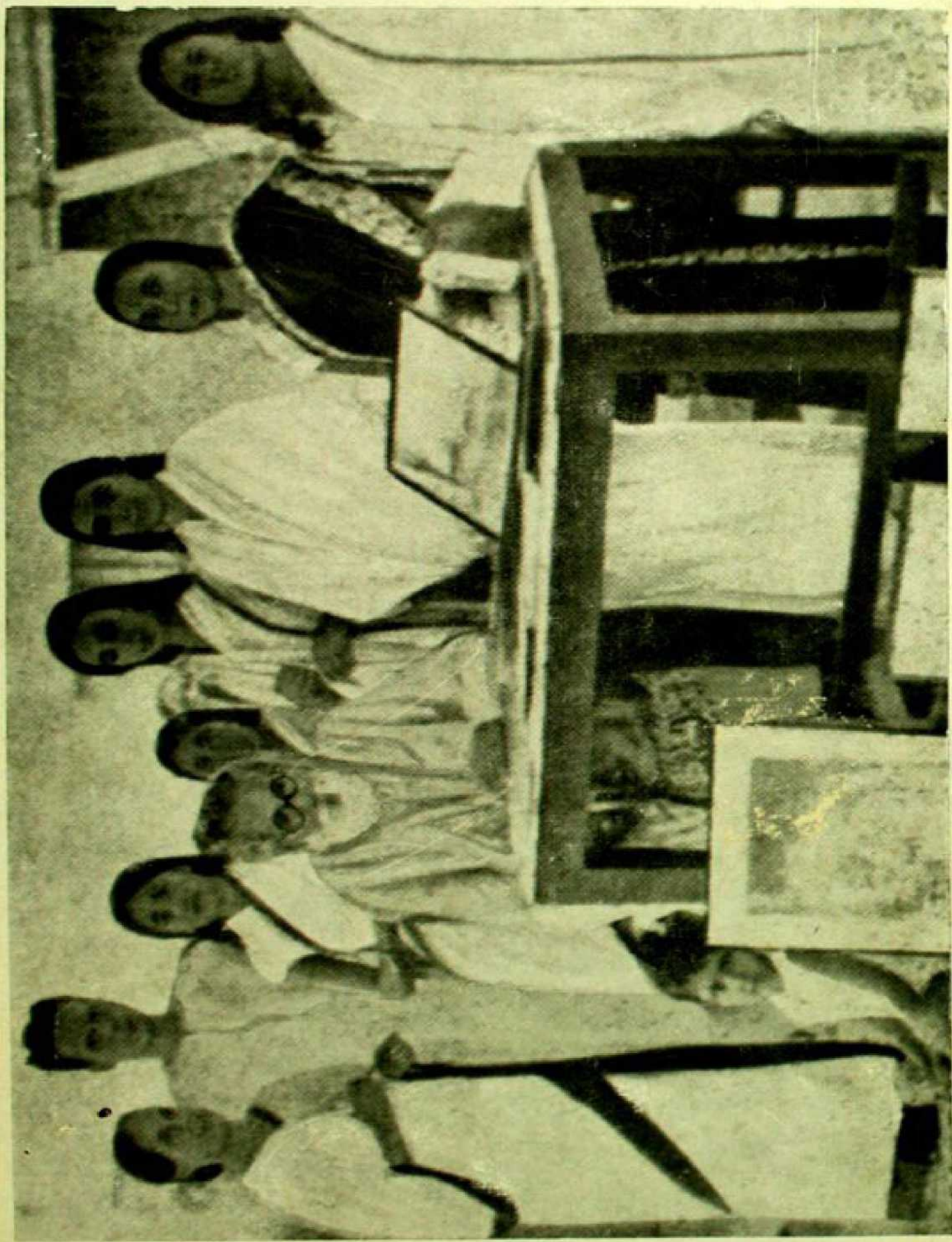
Sitting (L.-R.)—Acharya Ray, Mahamahopadhyaya Haraprasad Shastri, Shri Hirendra Nath Dutt.
Standing (L.-R.)—Dr. Suniti Kumar Chatterjee, Shri Harekrishna Mukherjee (Sahitya-ratna),
 Shri Ganapati Sarkar, Kumar N. N. Law, Shri J. N. Bose, Shri Jyotish Chandra Ghosh, Shri Nalini Ranjan Pandit.

(By courtesy of Shri Kanchan Mukherjee)

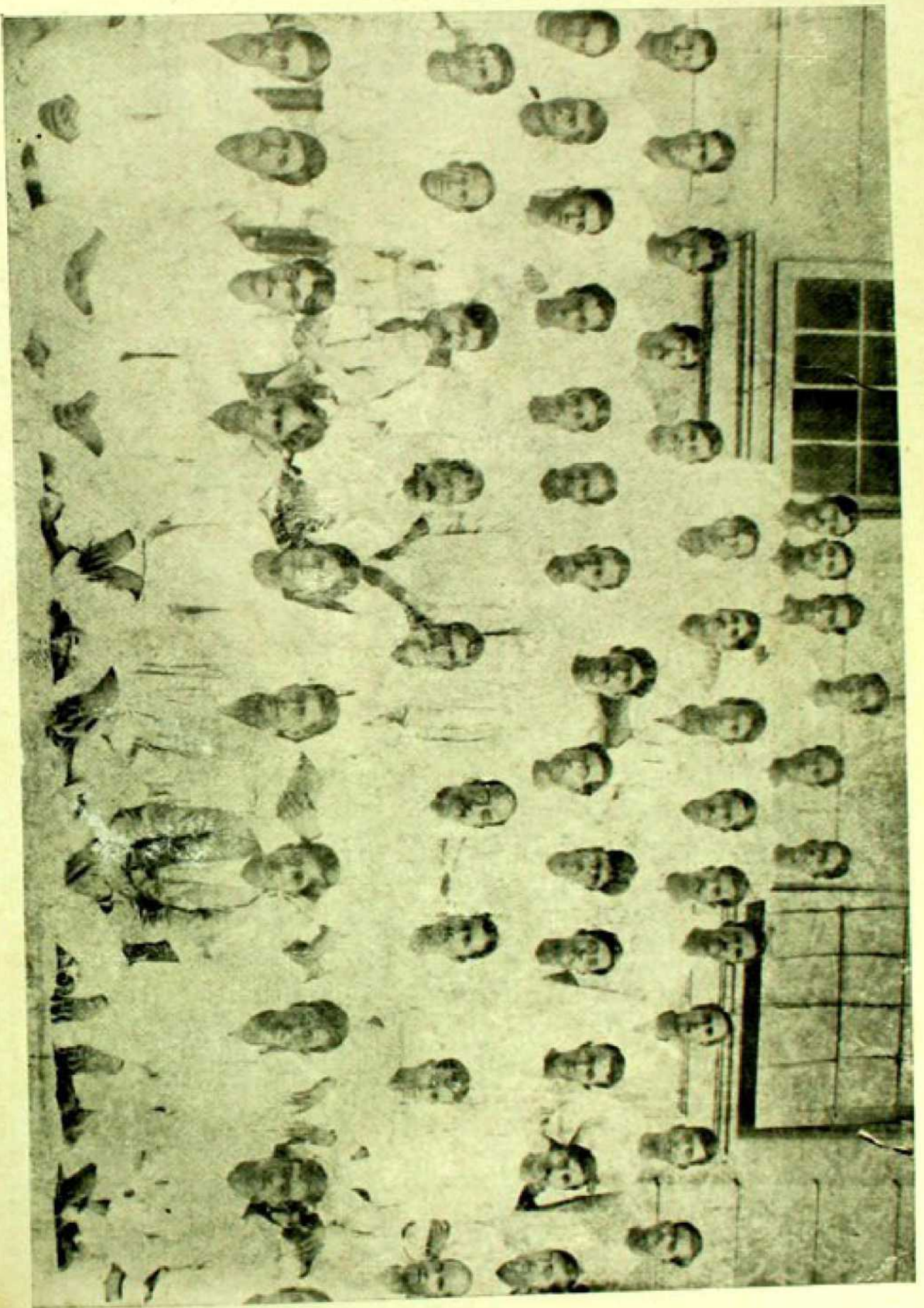


XXII. ACHARYA RAY INAUGURATING THE SAHEBNAGAR KRISHI-SILPA PRATISTHAN, NADIA (1930).

(By courtesy of Shri Haripada Chatterjee)

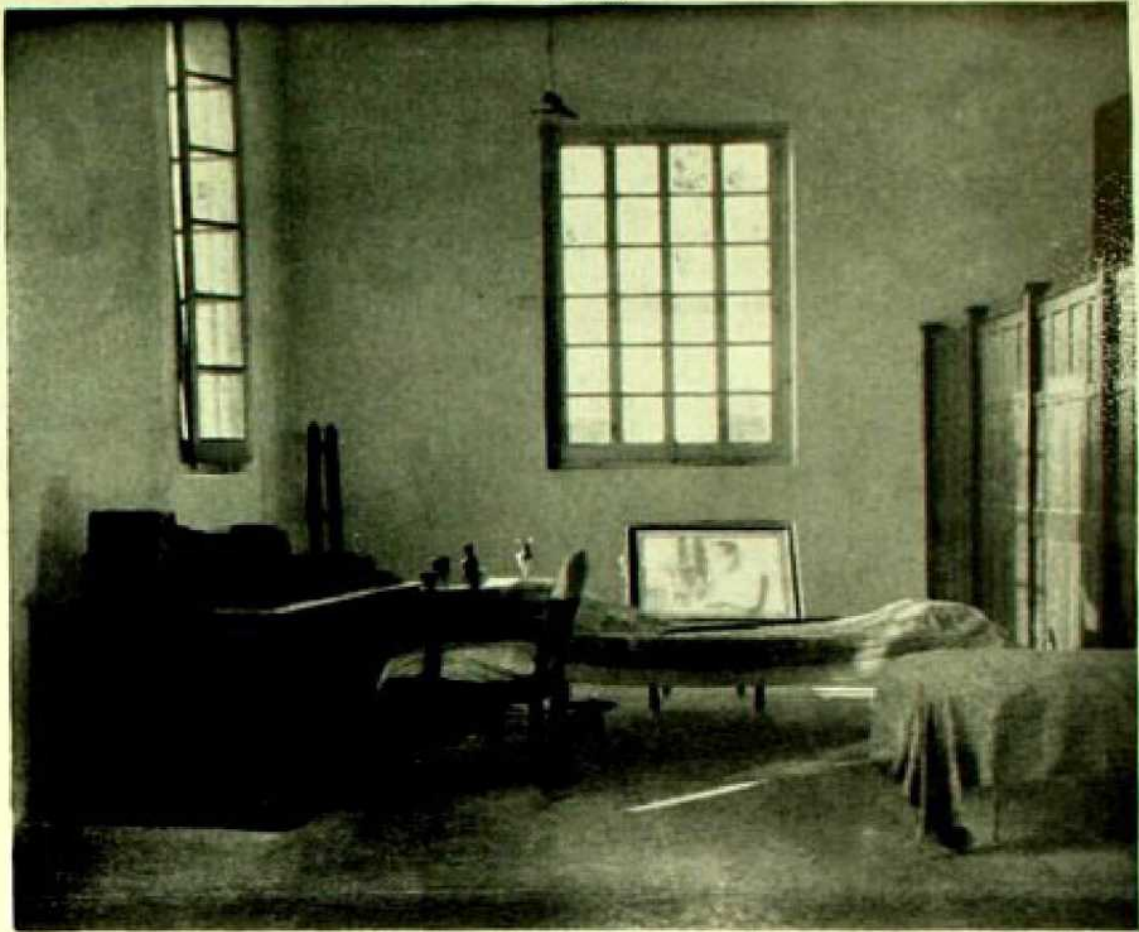


XXI. ACHARYA RAY, FOUNDER-PRESIDENT, NARIKALYAN SAMITY.
(With members of the Samity — 1929)

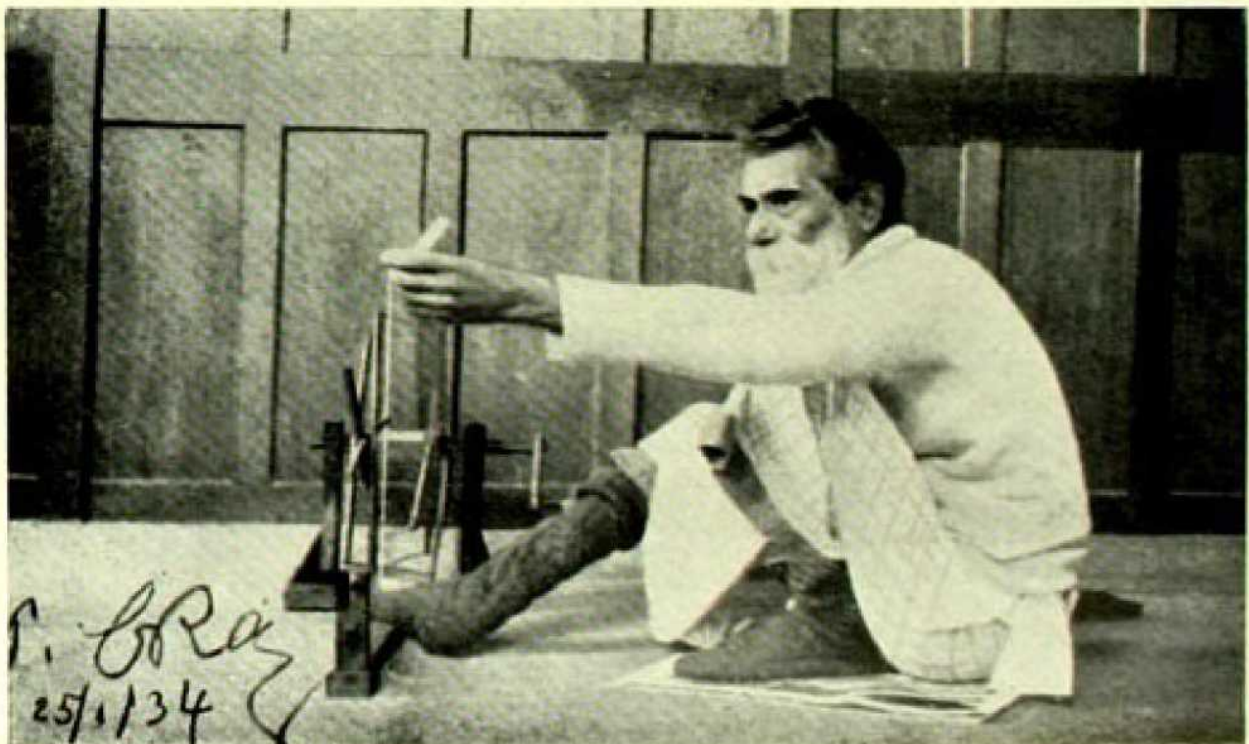


XX. ACHARYA RAY WITH HIS COLLEAGUES AND STUDENTS.
(University College of Science — 1928)

Sitting (L. to R.) — M. N. Goswami, P. B. Sarkar, J. N. Mukherjee, P. Ray, Acharya Ray,
(Colleagues) — P. C. Mitter, H. K. Sen, P. K. Bose, B. C. Ray.



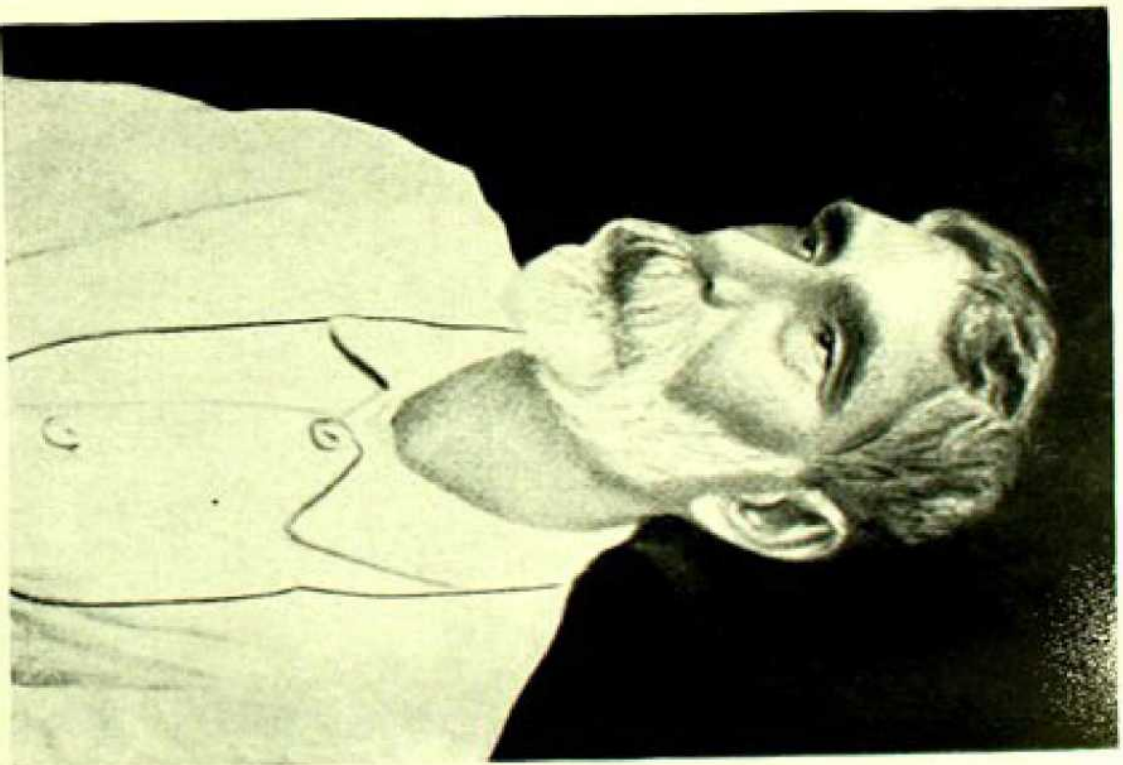
XVIII. ACHARYA RAY'S LIVING ROOM.
(At the University College of Science)



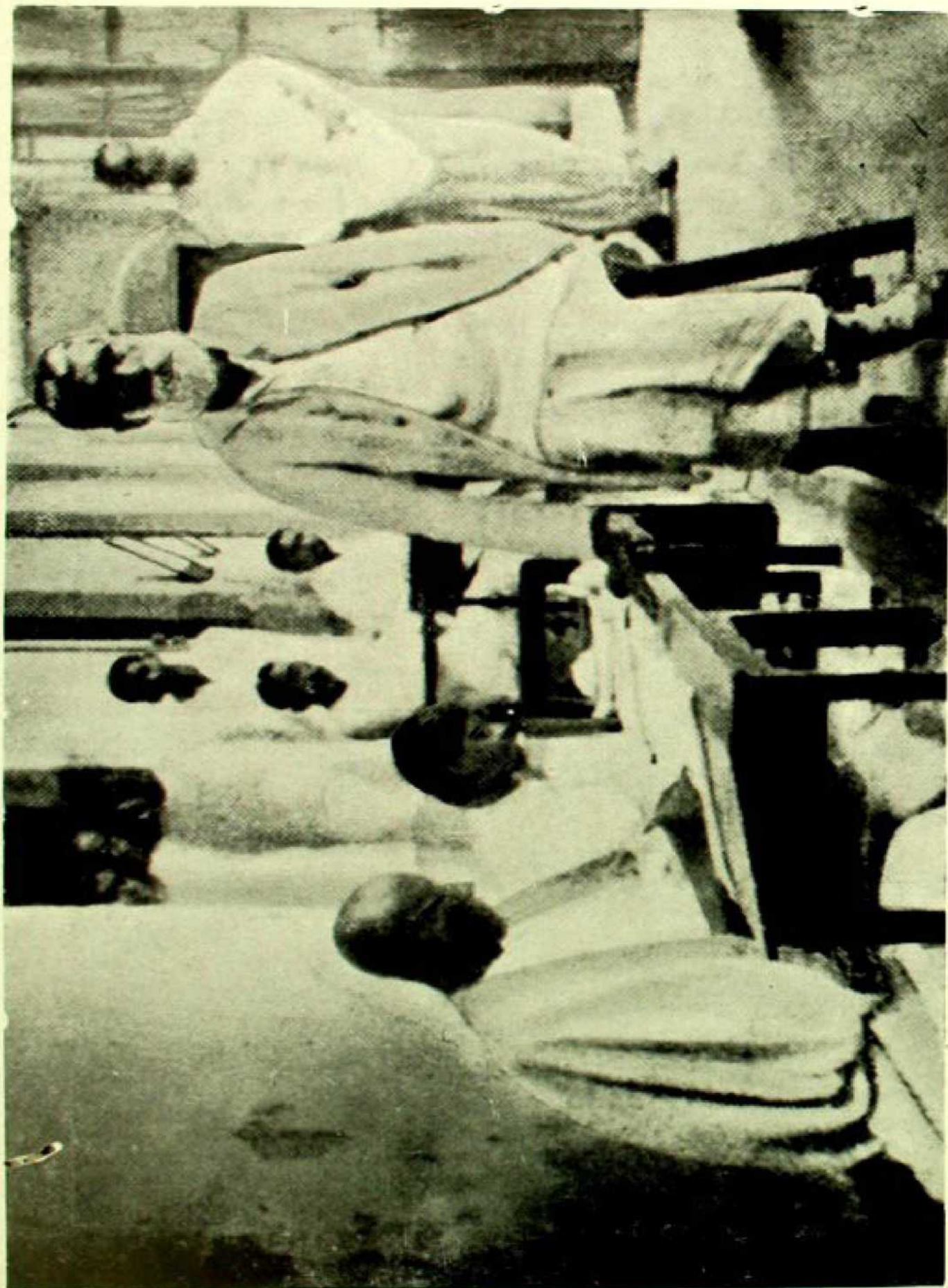
XIX. ACHARYA RAY SPINNING.
(University College of Science—1934)
(By courtesy of the Manager, B.C.P.W.)



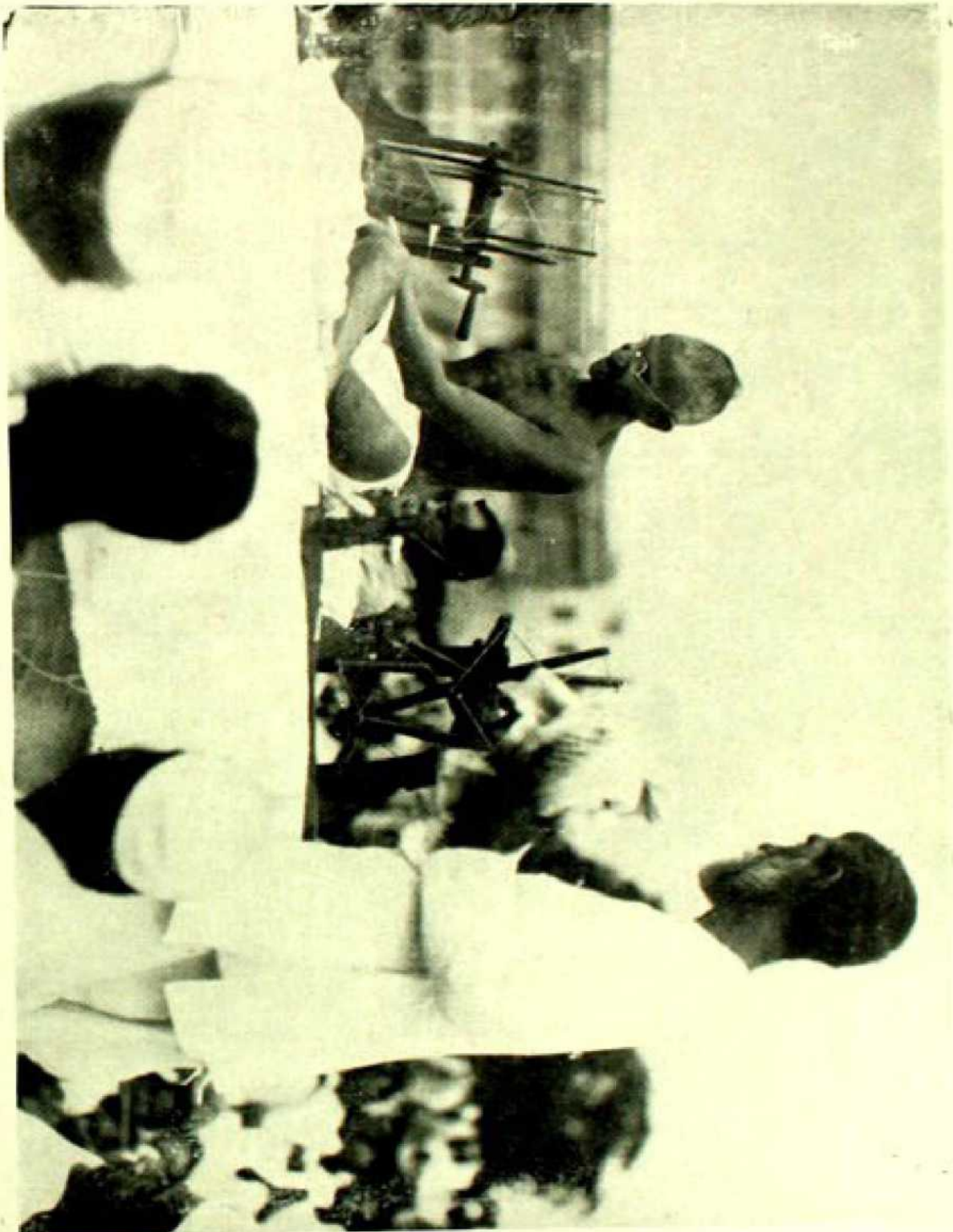
XVI. ACHARYA RAY IN 1926.



XVII. ACHARYA RAY IN 1932.



XV. ACHARYA RAY WITH WORKERS OF SANKAT TRAN SAMITY (1925).



XIV. ACHARYA RAY WITH MAHATMA GANDHI (1925).
(At the Sradha-Basar of C. R. Das)
(By courtesy of Shri Kanchan Mukherjee)



XIII. ACHRYA RAY AT THE BENGAL CHEMICAL AND PHARMACEUTICAL WORKS LTD.,
WITH ITS BOARD OF DIRECTORS (1924).

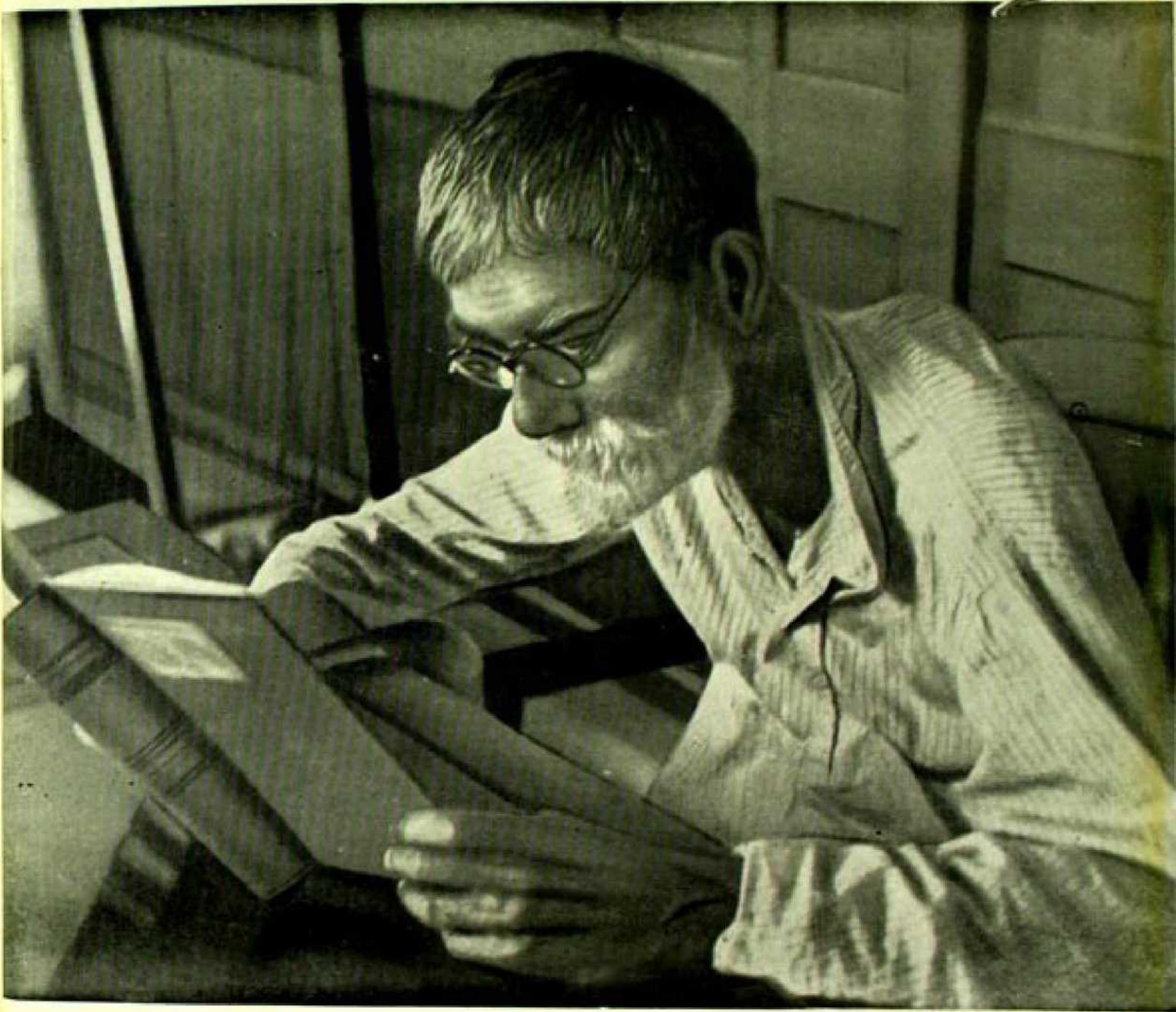
Sitting, (L. to R.) — Shri W. M. Roy, Acharya Ray, Rai Bahadur Chunilal Bose,
Rai Sahib Kunja Behari Basu.

Standing (L. to R.) — Rai Bahadur Haridhan Dutt, Shri Satyananda Bose,
Shri Rajshekhar Bose.

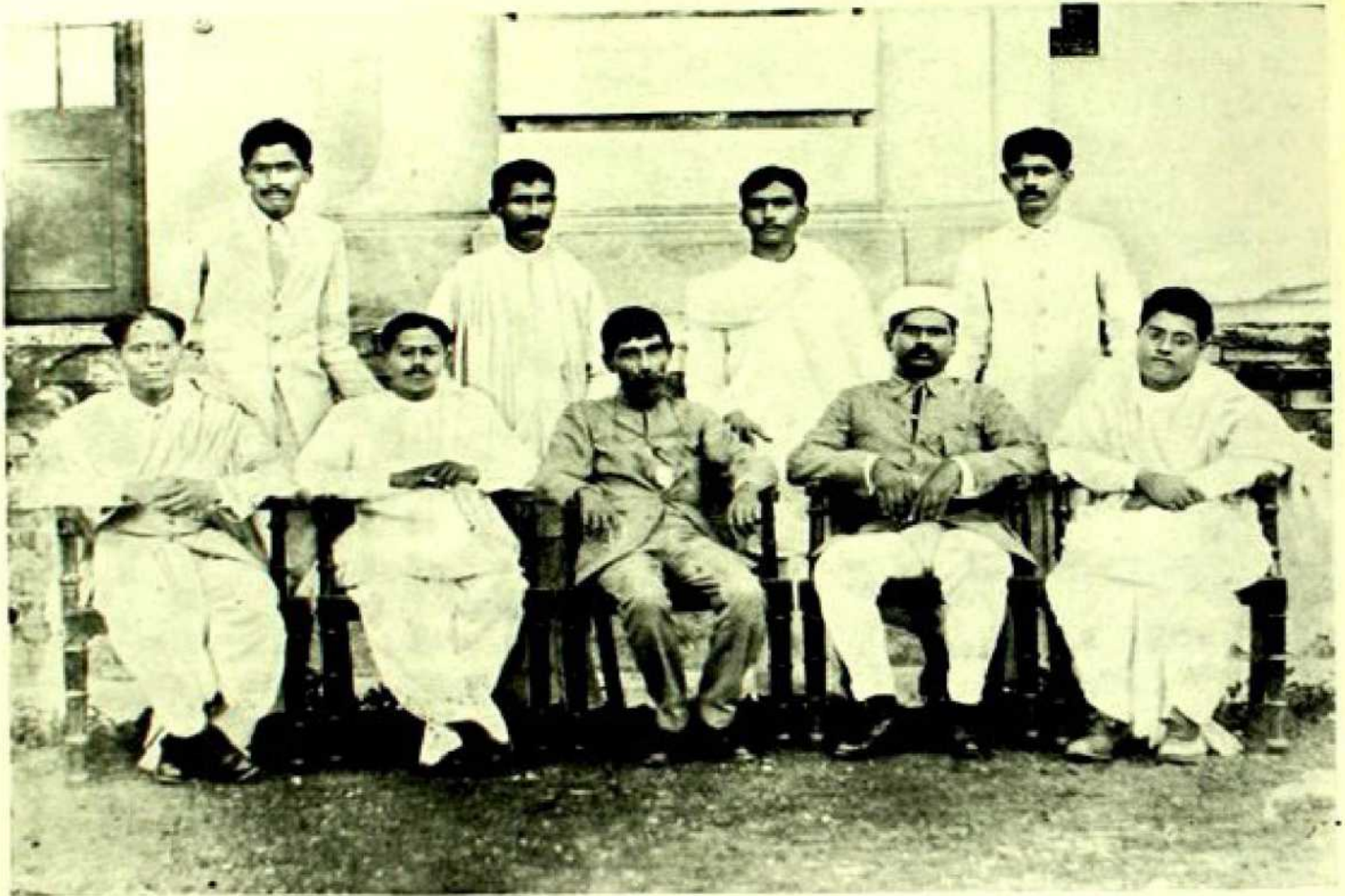
(By courtesy of the Manager, B.C.P.W.).



XII. ACHARYA RAY IN 1918.

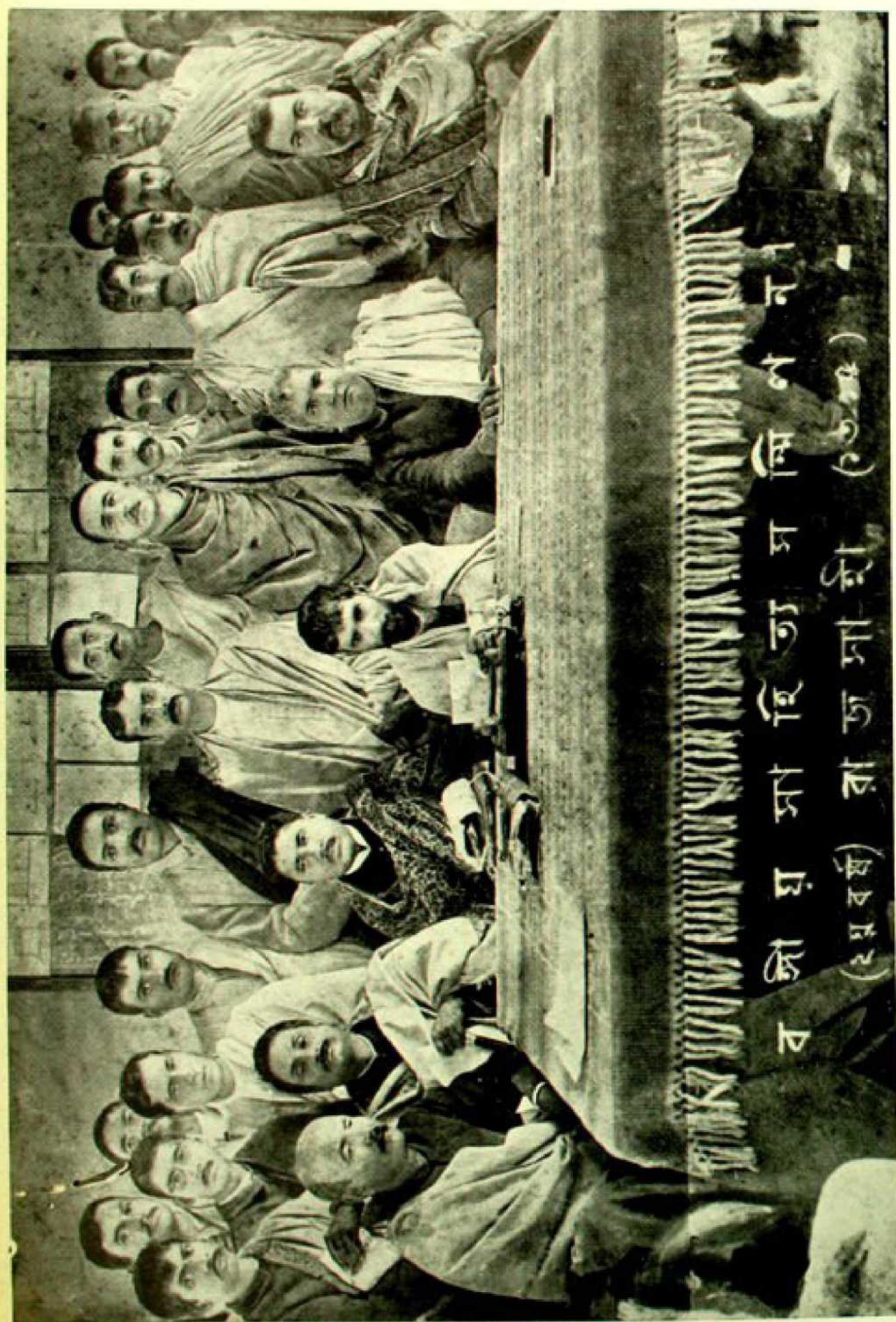


XIA. ACHARYA RAY ENGAGED IN READING SHAKESPEARE (1916).
(Photo by Shri Parimal Goswami)



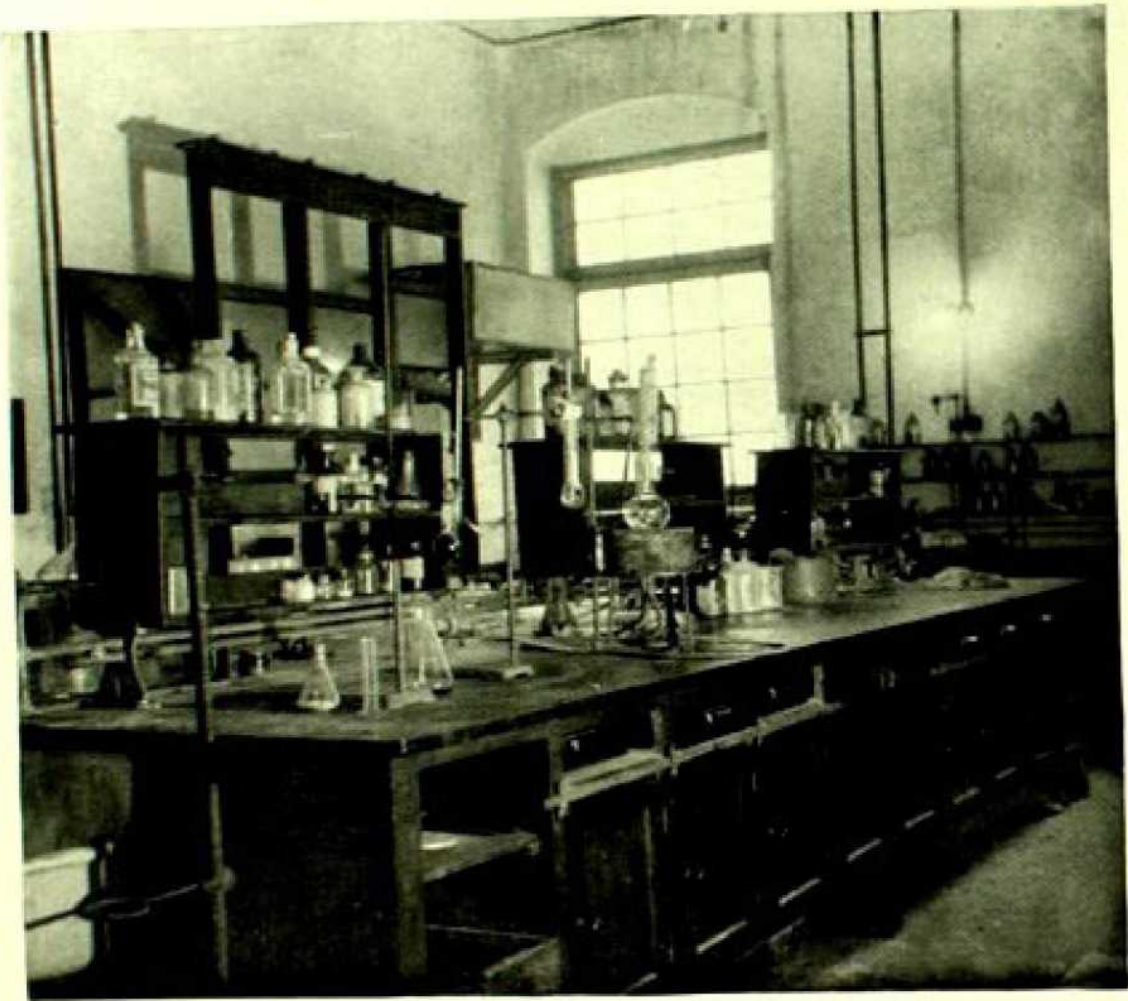
XI. ACHARYA RAY WITH SOME OF HIS PUPILS (1914-15).

*Sitting (L. to R.)—P. B. Sarkar, Amaresh Chakravarti, Acharya Ray, T. S. Muttu, S. N. Bose.
Standing (L. to R.)—M. N. Saha, U. N. Karmakar, J. C. Ghosh, J. N. Mukherjee.
(By courtesy of Sm. Nilima Ghosh)*



X. ACHARYA RAY PRESIDING OVER THE BENGAL LITERARY CONFERENCE AT RAJSHAHI — 1908.

Sitting (L. to R.)—Bhabani Govinda Chaudhuri, Nikhil Nath Ray, Kumar Sarat Kumar Ray, Acharya Ray, Ramendra Sundar Trivedi, Maharaja Manindra Chandra Nandi.
Standing (L. to R.)—Kumar Hemendra Chandra Ray, Jages Chandra Sinha, Jyotis Chandra Ghosh, Ramani Mohan Ghosh, Hem Chandra Das Gupta, Khagendra Nath Mitra, Brajasundar Sanyal, Sasadhar Ray, Srigovinda Roy, Ramchandra Ray, Krishna Chandra Sanyal, Surendra Chandra Gupta Bhaya.

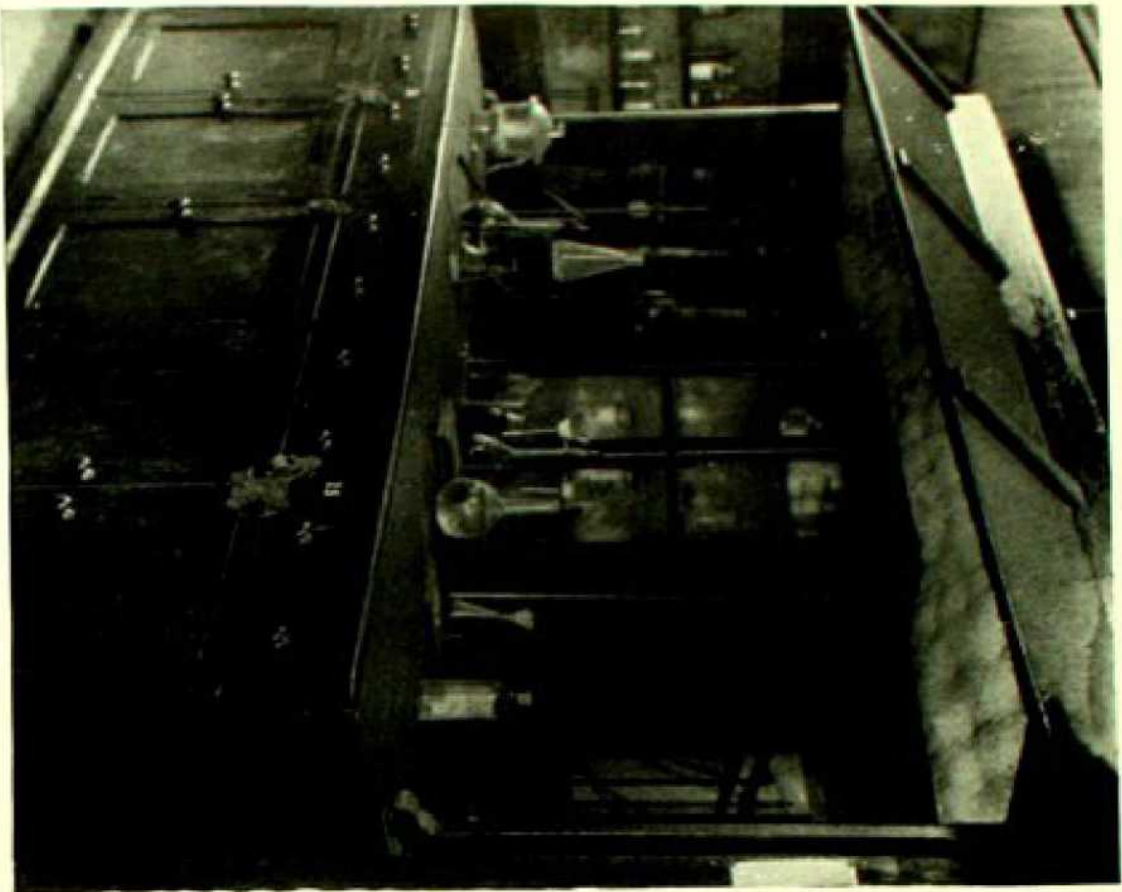


IX. ACHARYA RAY'S LABORATORY.
(University College of Science)

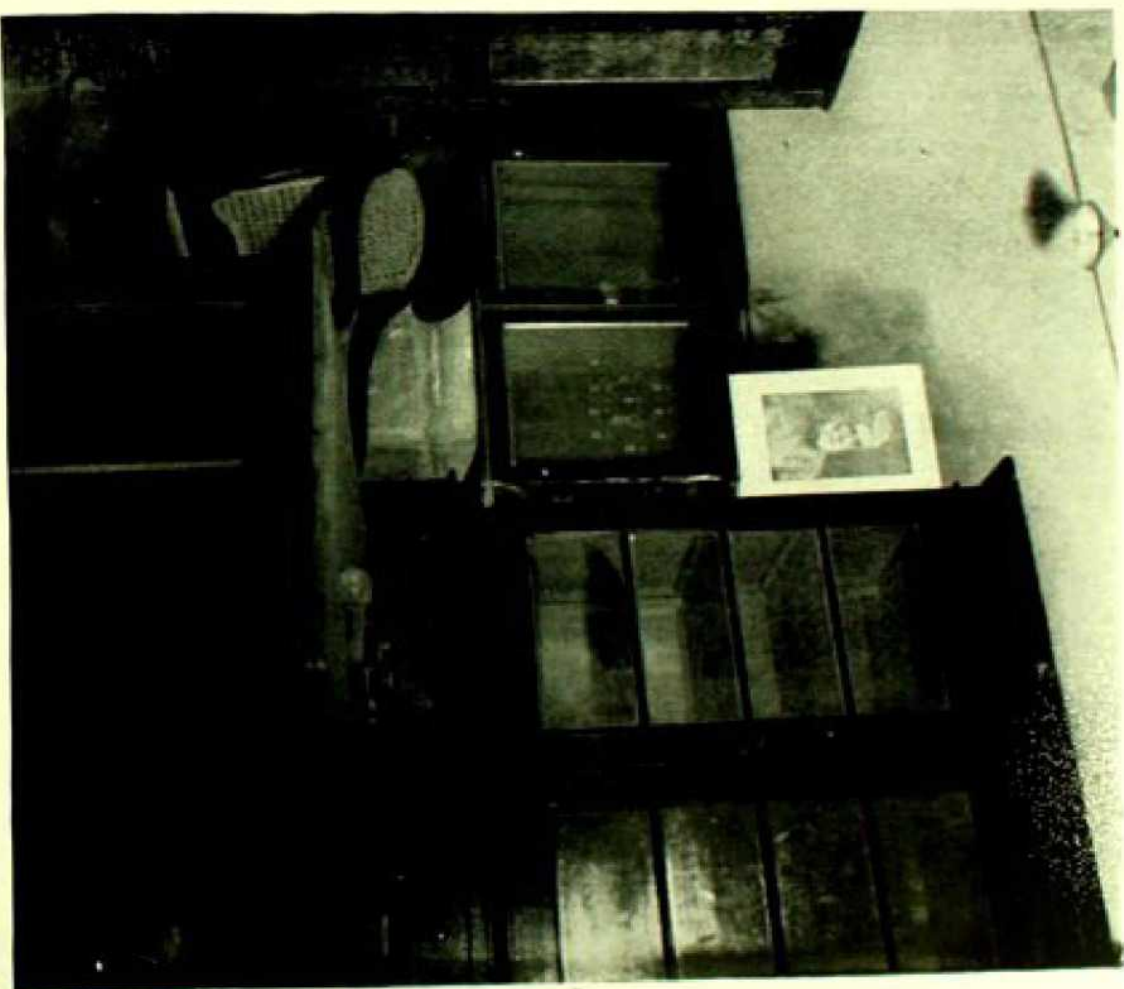


VIII. ACHARYA RAY WITH ACHARYA JAGADISH CHANDRA BOSE.
(With some students of the Presidency College, 1907)

(By courtesy of the Principal, Presidency College, Calcutta)



VI. PRESIDENCY COLLEGE CHEMICAL LABORATORY.
(Here Acharya Ray used to work.)



VII. ACHARYA RAY'S SITTING ROOM AT THE PRESIDENCY COLLEGE.



V. ACHARYA RAY IN 1896.

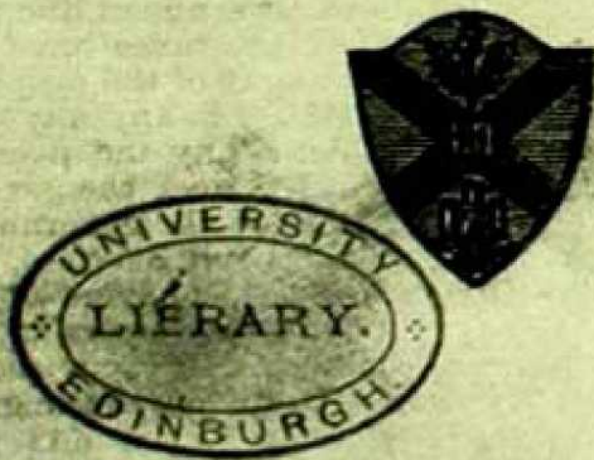


INDIA

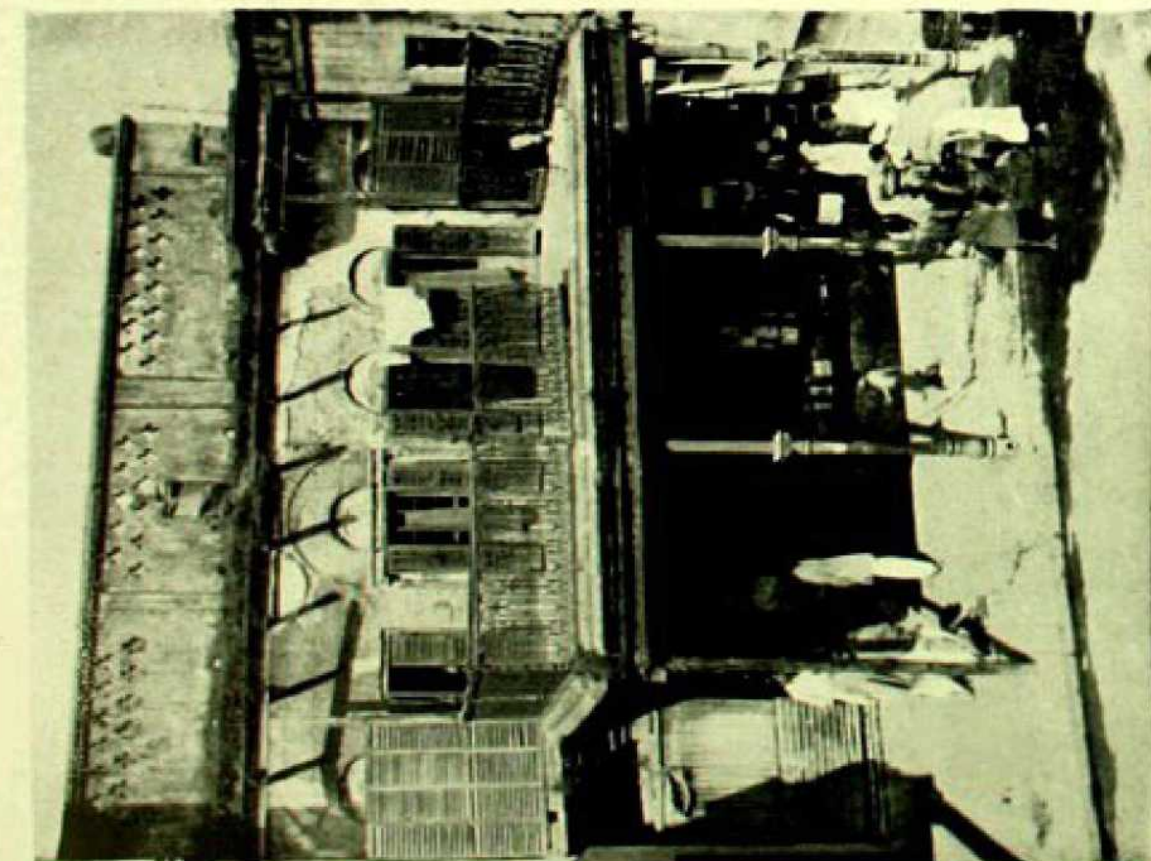
BEFORE AND AFTER THE MUTINY.

BY
AN INDIAN STUDENT.

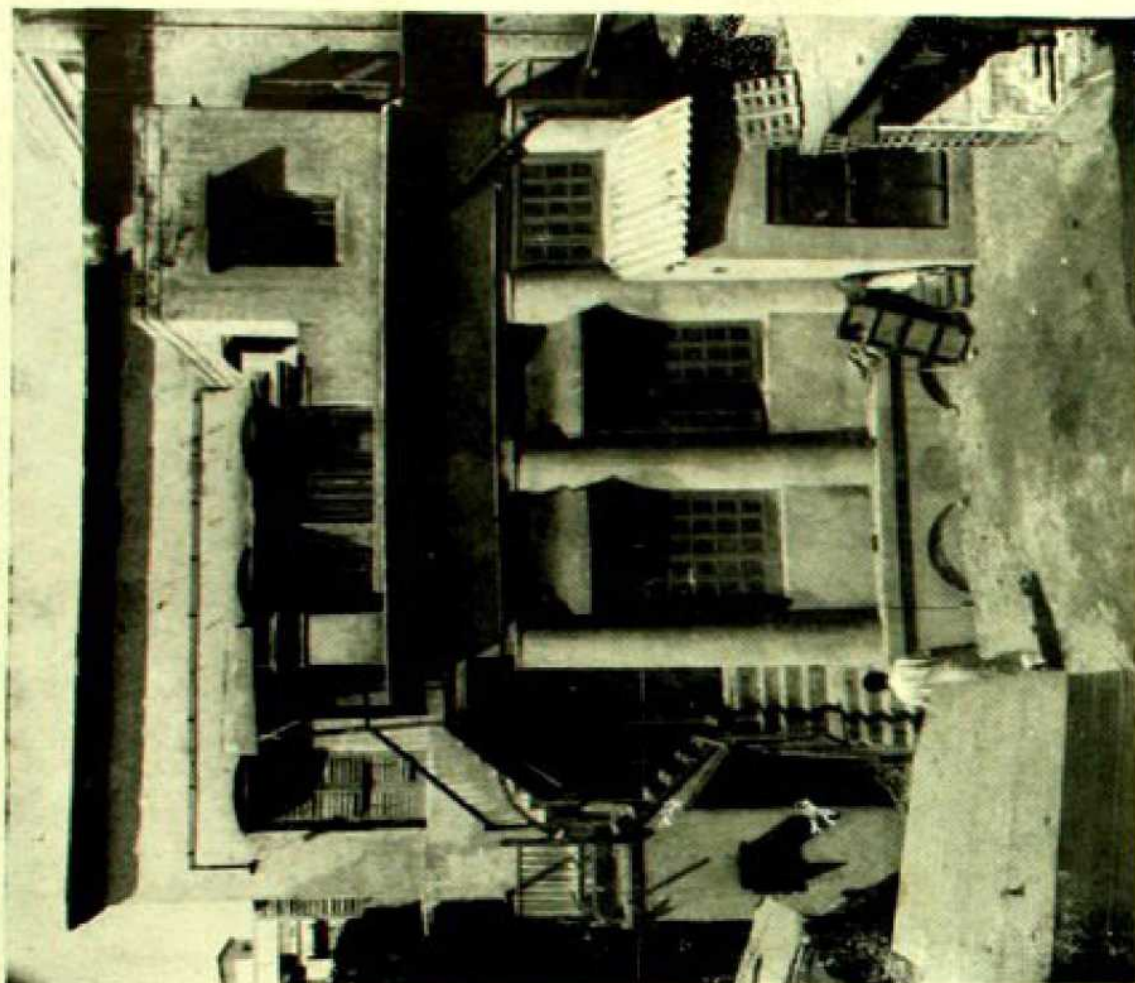
"The truth as to India cannot too soon be understood."
W. E. GLADSTONE.



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III. HOUSE AT 132, AMHERST STREET IN CALCUTTA.
 (Acharya Ray lived here with his parents in
 his school days.)



IV. HOUSE AT 91, UPPER CIRCULAR ROAD IN CALCUTTA.
 Acharya Ray lived here after joining the Presidency College,
 Calcutta, till his retirement from Government Service
 (1889-1916).



II. OUTER QUADRANGLE OF THE ANCESTRAL HOUSE OF ACHARYA RAY.



I. INNER QUADRANGLE OF THE ANCESTRAL HOUSE OF
ACHARYA RAY.

(At Raruli-Katipara)